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ABSTRACT

Eleven papers from an Australian Technical and Further Education (TAFE) conference are included: "The TAFE System and the Training Reform Agenda" (Gregor Ramsey) raises issues to keep the impetus going for national system improvement and development. "Towards the Best of Both Worlds: Models for Governance of TAFE Colleges" (Ian C. Hill) suggests a collaborative organizational structure and culture. "The New South Wales Model of Governance of TAFE Facilities" (John Allsopp) describes institutional governance. "Tertiary Education and Training in New Zealand" (George Preddey) looks at forces and factors driving change, the nature of the change, and an outline of tertiary education and training. "Aboriginal Education and Training into the 21st Century" (John Lester) suggests how TAFE can include Aboriginal Australians in economic growth and prosperity. "The Role of Research in Policy Making" (Kenneth Wiltshire) addresses the nature of the policy process and of research and Australian research needs, achievements, and research gaps in vocational education. "Does Research Influence Policy?" (William C. Hall) looks at where research leads. "School-TAFE Interface" (William C. Hall) analyzes current and needed research. "Current Research Issues in Competency-Based Assessment" (Peter Thomson) addresses the relationship between competency-based assessment (CBA) and learning and assessors, assessor training, and recognition of prior learning. "Flexible Delivery" and "Non-TAFE or Private Providers" (David Lundberg) summarize completed, current, and needed research in these areas. Appendixes list research needs, priorities, and questions. Many papers contain references. (YLB)

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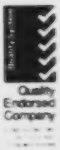

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The TAFE system and the training reform agenda

Gregor Ramsey
Managing Director
NSW TAFE Commission

ANTA and State/Territory systems: Stocktake of issues

I have only recently returned from overseas where I had the opportunity to reflect on our training reform agenda, illuminated by directions in vocational education in Vietnam, Japan, the UK, France and Germany, as well as formal discussions on the topic through OECD and UNESCO. Surprisingly I was the only person to raise terms like 'training market' and 'competency-based training' and I was pleased to see the enhanced interest being shown in all countries concerning the development of vocational education.

The different perspectives and major insights I found had me returning relaxed and enthusiastic. Our TAFE system is as good as any formal system in the world and better than most. We are moving in the right direction and we have much to contribute internationally. It was with some surprise that on return I discovered more uncertainty rather than less; significant inter-bureaucratic developments which seemed to be hampering rather than helping the changes occurring in TAFE systems.

The kind of message coming through, even from the disparate groups and bodies that make up the VET system in New South Wales, was—what is ANTA? What is it meant to be doing? Was this what was intended when the national system was agreed? The new arrangements, rather than simplifying the systems, seemed to be making them more complex.

I noticed that ANTA was now advertising itself as 'industry driven', which seemed to ignore the balance between meeting industry, social and individual needs that has always been the strength of our TAFE systems. If ANTA wants an industry-driven vocational education system, then we in TAFE would want an education-driven employment system.

An international perspective

While dichotomies always oversimplify, it seems to me there are two kinds of country: the first group includes those like Germany, Japan, Korea that have strongly developed 'in industry' training systems. They are countries where the employers take a high level of responsibility for the education and training of their employees, expect them to be employees for life and play an active role in endeavouring to keep unemployment low. There is no need in these countries for a 'training guarantee'. The second group of countries have highly developed formal vocational education and training systems like France, UK, Australia, Singapore and the Scandinavian countries. The gaining of skills is more an individual employee's responsibility; the skilled person moves from job to job, and unemployment is very much the 'government's' business. Training guarantees are imposed to make employers more interested in training. I could add that there is a third group of countries, largely Anglo Saxon in origin, that have a fetish about competency and assessment, with little understanding of the link between curriculum and learning outcomes. This third group is likely to lead us up a dead end if we follow it too slavishly.

The interesting thing is that the 'in industry' training systems are endeavouring to develop their formal systems, as we are endeavouring to develop a more 'in industry' approach. The economic imperatives are driving both groups of countries to some middle ground.

Often in Australia we hear of the success of the German 'dual' system. This system is cracking in Germany because it is becoming increasingly expensive for employers and because young people realise that a future as a skilled worker is economically bleak. For example,

if the average wage in Germany is indexed at 100, then a skilled worker can expect to receive 80; the top pay for an experienced skilled worker, a 'meister', is 125; while a person graduating from a 'fachhochschule' can expect 175; and from a university 185.

Overall, the emphasis is to increase the extent of vocational education in the formal education systems, whether it be school, further education or university. The emphasis is to strengthen vocational education through a more effective integration of formal and 'in industry' education, realising that in times of high unemployment whether the system is traditionally 'in industry' or 'formal', the bulk of the responsibility to provide skills and knowledge to young people and the unemployed will fall on formal systems. The core business of industry is not education, and industry will have to rely on formal systems of education for the development of its human resources as it does on banks for its capital or electric grids for its power.

The role of TAFE

I would like to return to the three-fold role of TAFE: that is to meet industry needs in terms of skills, to meet social needs in terms of achieving social justice, and to meet individual needs in terms of leisure or personal development.

The agenda we have inherited in TAFE arose from the Kangan report (1974) which is now twenty years old. We have served that agenda well, and particularly its social and individual dimensions. We are now looking for a new direction, which is not uni-dimensionally 'industry driven', but which integrates our industry, social and individual dimensions in new ways. Unfortunately for our systems, the 'new agenda' is simplistic, theoretically shallow, with very limited philosophical underpinning—and to a large extent it is our fault that it has gone that way.

Many of us have high hopes that ANTA will provide an underpinning for vocational education that will build on the Kangan initiatives, but 'industry-driven' slogans will not do it.

Slavery was an industry-driven initiative, economically efficient, with a significant training component for the slaves. The gains we have made in Aboriginal education, increasing opportunities for women, assisting the disabled and disadvantaged and providing appropriate education and training for our migrants has been essentially socially driven because of political will, with industry often a reluctant participant in the changes.

I am very pleased that one of the themes for this conference is vocational education for Aborigines. TAFE systems have been particularly important in increasing opportunities for this group, and is the only sector of post-compulsory education where Aborigines participate in proportion to their population.

TAFE is now involved in 'inter-bureaucratic' questions and Florentine intricacies of manoeuvre, which often seem a long way from making our system of vocational education and training as good as it can possibly be. It is for the 'new bureaucrats' in vocational education to find a way of advancing its whole without pulling down one of its most important parts, namely TAFE. Sometimes the impression is given, from what is said in some uninformed quarters, that TAFE is not doing a good job. Let me say unequivocally, based on my two and a half years in it, and my recent experience overseas, that TAFE is a high quality, strong system of world class. And it is our role as the leaders of TAFE to get that message across in the wider community.

It is very important that we know what our customers want and fortunately we have some information about this. We know from the recent NCVER research that more than 80 per cent of our students are very satisfied with what we do. You might rightly say—yes, but what do the employers think? That of course is the next national survey, but many of our systems have received very positive feedback from the industry satisfaction surveys that we regularly undertake for ourselves. This raises the issue of who are our customers and we have to agree that our primary customers are those who front up for our courses.

We should be justly proud of the fact that the customers like what we do. Why do they like what we do? You

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can understand why, if you sit in a class—whether it is retailing, building, marketing, or any other area: those teaching the class know what is going on in their industry. They know the things that the people in the class want to get to, and have experience in the things they are teaching. This produces a cohesion between educational skill and skill based on real experience that I have rarely seen in other teaching situations. This is very important for our customers. They like our approach and want to use us.

Our industry, that is, the vocational educational training industry, has probably done better in this country in terms of its ongoing modernisation than many other industries. We should be proud of what we have done. Clearly the TAFE systems work and we should not be put off by stories to the contrary.

Seminars of the kind we are having here will, in my view, have more national impact and provide greater national direction than proliferating ANTAs, MINCOs, and the rest of the tangled web, because these meetings allow us to focus on the real issues facing us at the operational end of the system. We are the people who actually have the accountability for putting together the disparate interests, policies and priorities to make the major part of the system work for the whole community. We have to be hands on and we have to deliver. We have a major policy development role: policy developed away from the implementation of that policy quickly degenerates into a kind of 'we and they', which we must avoid at all costs.

A stocktake of questions

It is something of an innovative opportunity we have here today—to have a stocktake of issues in the national vocational education and training system when it has only just begun.

We have been working with ANTA for almost a year. They have developed their priorities for 1994. The question now is what we do with them. We are the ones who will have the responsibility to implement them so

there must be a close relationship between ANTA and the TAFE systems.

My view is that ANTA's role is to facilitate us doing the kinds of things that are in the priorities document. We are ANTA and TAFE alike, all the same people who were in the old system before 'nationalisation', and despite our best intentions we naturally have tended to operate from our old expectations.

We all have our different assumptions about what Commonwealth–State relations are and should be. For those of you who were involved in the negotiations to establish ANTA and the national system, it is not new to realise the differences in approach and understanding that there can be between States and a national agency.

Because we have divergent pictures of the system, even amongst ourselves, we tend in our discussions to become preoccupied with the trees rather than the forest. Especially, some people have said to me, when ANTA seems keen to keep us counting the trees.

I am aware of a growing list of issues which people feel need to be sorted out, such as:

- Why was the ANTA 1994 priorities document so general? Is it a facilitating document, or is it one of those nice documents we all produce but which do not really help us either set priorities or grapple with real changes that need to be made?
- Are the State Profile Guidelines too general? Are they too detailed? What will ANTA do with all this information—how will thoughtful and helpful analysis emerge?
- Why is ANTA dealing in detailed strategies at all? Is it not the case that much of the operational level planning in, for example, a big system like TAFE New South Wales, is best left to institutes because they are better able to judge the strategies most likely to achieve particular goals?
- Where is TAFE representation in considering what is going on, given that TAFE represents such a major proportion of the total effort? Is there reluctance to be influenced by uncomfortable issues about practicalities of implementation?

- What does 'industry driven' mean and where does this leave TAFE's clear responsibilities to the community? How can the ANTA Board with its structure take account of community interest or make decisions that are useful for providers?
- How can we get information on real training needs instead of just industry or employment forecasts? There is a very big difference between a training need and an employment forecast, even before we reach the question of the best way of providing for a particular identified training need. It may, for instance, be necessary for a number of reasons to put an enormous amount of effort into an area in which employment is declining.
- How can we get effective national accountability without duplicating and doubling up on already existing State accountabilities, which in New South Wales at least are extensive and thorough?

And so we can go on.

I believe that most of these questions hinge on some more basic issues which we need to sort through such as—what is the vision for NVETS? We are all looking for vision and for leadership; let us make sure we look to ourselves first.

What is our vision for the national system?

I believe that the fundamental issue for us is to find a vision and values for the new national system which are sufficiently dynamic, forward looking and embracing of all those involved so that our old prejudices are overwhelmed. That is very important. I am a strong believer in a national system and we have all got to work toward that end. But, equally, we have all got to respect the strengths of all the components of that system. It is too easy to say we should be more like Germany or Japan or France. It is too easy to fall back on slogans and to complain that 'the dills out there' aren't good enough to make our marvellous reform agenda work. The current system is the one we have and it is right for us. Of course it can be improved, developed in new directions, but the most important thing of all is to give it confidence.

We will find it much easier to deal with the long list of issues that have already emerged if we have a shared vision and better common understanding.

I think it is important to remember that 'before ANTA' we were working steadily towards a more effective national system in terms of national monitoring and accountability measures, credit transfer, national recognition, competency-based training and curriculum development co-operation, not insignificant achievements in a federal context.

With ANTA, we are seeking a way that will enable us to improve planning and resource allocation; to refocus some of our attention and resources onto progressing and publicly highlighting the important strategic priorities that need Australia-wide action. I did not envisage this would mean that national decisions had to be made about all priorities, or that each State or each TAFE college would contribute to specific national priorities in the same way.

Whether such priorities are as specific as achieving Finn targets or as general as increasing responsiveness to industry in policy, planning and provision, the important thing is that the national focus for a period of time will be given to make clear and demonstrable progress in a key area. We cannot advance on all fronts at once.

We must pick our targets. This does not mean that the rest of our business will fall by the wayside. If it does we have let our country down. Nor does it mean that co-operation or essential planning and infrastructure matters will cease in other areas.

Our vision for the system must be a shared one if it is to be effective in creating anything but superficial change. How many of you can say that your vision and ANTA's vision coincide? It is most unfortunate if they do not, and is probably due to our misunderstanding of ANTA's vision. In this context I have some evidence of ANTA's misunderstanding of the New South Wales' vision for TAFE. I emphasise again: our vision must be close if we are to co-operate easily and move forward together. An important task over the next year or so will be to get our visions straight.

What does the national system encompass?

Our sense of what the national system really encompasses and how we believe different participants in the system should interact is extremely vague. This is not surprising, given the diversity we are attempting to place under the one umbrella. Too often we see the acronym TAFE used as if it were uniform both within and across States and Territories. Of course it is not, and we should not listen when we hear TAFE is doing 'x' or should be doing 'y' without challenging the generality.

Some people have a picture of the national system as a mega government program that can be 'steered' by the incentive or prod of dollars into being an ordered machine, with demand data going in one end and workforce skills coming out the other. This is not a sensible or even a desirable picture, but is one that can arise when over-simplification occurs.

It is the type of framework that no-one really believes, although it seems as if this is their hidden paradigm. But if we take the central 'controlling hand' as one extreme end of the debate, that is: the system is 'out of control', so therefore we must manage it; to manage it we have to control it; to control it we have to regulate it. That is one approach and Australia has been very good at management by regulation, particularly in the public sector.

The other side of the debate is to say: 'they' (that is us) know what they are doing; let us empower them and support them to do what is needed; to empower them, let us provide guidelines about things on which they actually want guidelines. Let us facilitate what they are doing rather than regulate what they are doing.

Most public providers have vocational education and training as their core business. They provide a very wide range of training for a diversity of customers and clients—employed, partly employed and unemployed; businesses training their workers; governments wanting to consolidate new population centres; governments wanting to manage the supply of or demand for labour; and community groups requiring recognition of a wider

range of skills and social justice considerations in training and in the workforce. All the things that you do now.

Industry providers of vocational education and training do not have these things as their core business. Theirs is a comparatively selfish view of training, rightly oriented to maximising their profits and improving competitiveness. All of these are important goals but it means that training is not a market activity for them. Their training is not driven by consumer/trainee demand but by overall organisational priorities and goals.

The difficulties experienced by ITABs confirm for me the difficulties I see in imagining that people on the 'demand' side can drive the whole of vocational education and training without close involvement from those on the 'supply' side. Successful countries overseas are those where both sides of the vocational education and training equation are genuinely co-operating. This means genuine co-operation between government representatives, industry representatives, union representatives and providers. It also means that the supply and demand sides have an integration that we have not yet achieved in this country, and are unlikely to until it is realised that, in any market, the supply side in the end has to make the decisions as to what is produced or what service is offered, even though this decision is based on the widest possible input from the demand side.

We should not forget the private training providers who are very important to the system. They, like public providers, do have training as their core business but they come from a different viewpoint and with a different set of public responsibilities from public providers. We should also remember that schools and universities which have a different core business from TAFE systems are now coming into the vocational arena.

Last but not least there are the providers of infrastructure—ANTA, State training agencies, accreditation boards, regulators of contracts of training and central planning and support areas.

What is it that unifies this system of vocational education and training? How can the component parts best relate to each other?

The issue is one we have been discussing for several years now. I am not sure we are not simply seesawing from one perspective to another without achieving much by way of rethinking relationships and integrating goals across the system. The system needs some strong, sound vocational educational philosophies to be developed by people who know about education and about how people learn. This is critical to what we are doing. We have got to listen to those who have done it, and who have real experience of learning and of making learning systems work. We also need educational economists who have come into this field from the education end rather than from the economics end. This too is very important to the system.

We are in danger of remaining stuck in simplistic dichotomies and slogans unless we can develop a more sophisticated understanding of the enterprise of which we are part. It is easy to lapse into 'TAFE versus private training', or 'industry must drive training', or 'all training is part of a training market'.

My understanding of the intentions of the national system are clear. That is, in planning for vocational education and training, we need to consider the whole spectrum of what is happening across schools, universities, industry training, TAFE, private training—in this sense they are all part of the system.

This does not necessarily mean that government VET funds will be allocated to all the parts of the system. Equally it does not mean that the system is some sort of pyramid hierarchy with ANTA at the top. ANTA itself is one part of the system rather than the controlling body of the system.

ANTA, State training agencies and TAFE systems cannot influence all aspects of the national system to the same degree or in the same way. But we are, at all levels of the system, attempting to influence the direction and priorities of the non-government sector as well as the government sector.

I believe we need to develop relationships within the national vocational education and training system using the paradigms of partnership and networking rather than the paradigms of control and hierarchy. This will mean all of us developing systems that reward and encourage efficient co-operation and synergies, so that we are increasingly working together for mutual benefit and productive interdependence.

This in my view applies as much vertically, that is to relationships between TAFE systems, State training agencies and ANTA, as it does horizontally, for example between TAFE colleges and institutes, enterprises and communities.

Our role in the national vocational education and training system

I could talk at length about what our role is and what the role is of each of the actors in the system. I think my message is clear—that TAFE has a key and central role in the system. We have got to keep saying this. And we have got to keep asking, given this, what sort of planning needs to be done at the national level?

We have to be careful that ANTA does not simply add another layer. For example, in capital approvals, the State line of CEO (chief executive officer) to Minister to State Capital Works Committee to Cabinet is now supplemented by the State Training Agency and ANTA. So we still have to go through the first process, with a second one that goes something like CEO to State Training Agency to State Training Board to Minister, to ANTA officials to ANTA Board, to MINCO. What is the value that is added at each of these stages and where is the improvement to the capital program?

A second example is to see ANTA's view of what influences the nature of a training place compared with a State view. We naturally tend to look from the bottom up, while ANTA, because of its national perspective, looks from the top down. How do we reconcile these two views?

We must not forget that there is a range of systems and policies within a State that are very important. I am talking about the influence of such things as State development plans, State industry plans, equity policies and programs that apply across State agencies, and a range of management and quality improvement requirements developed on a statewide basis. Most of these statewide initiatives and plans impact on training as well as on our direct clients and customers, not to mention our suppliers, if you like, in other education and training sectors.

Each State is different and must be dealt with differently. For example, in New South Wales we have systems in place using training divisions and our central planning process to assist institutes to develop their regional plans. The challenge is to begin at the delivery end, with the students, where our customers are and most of the people in the system are, to try and ensure that their knowledge, their market intelligence, and their expertise are pushing up into the middle and to the top of the system.

Conclusion

I hope in raising these issues that we do keep the impetus going for the improvement and development of the national system. As I said before, I am a strong supporter of the national system—but of a system that operates in a framework of strong State systems and strong TAFE systems. These TAFE forums can contribute in a major way to this development. The people at this conference focus on the work that has to be done on the ground to keep providing and improving our training services. Our role is critical to the success of a national system.

We must contribute fully because TAFE systems will continue to be the major providers of vocational education and training. We can provide strong leadership for positive change and a broader perspective on training, especially through the cultural changes in our own organisations. Cultural change is certainly going on in my organisation just as it is happening everywhere in Australia.

We also have the potential for powerful and stubborn resistance to the development of a national system if it is not consistent with the responsibilities that we have from our respective State governments and does not serve their vision for meeting the needs of their citizens. I am responsible to the State Minister and in one, two or three years it will be our governments together who will determine the future of the national system. We want that to be right, and we want TAFE's role in that to be fully recognised and strengthened.

I think, most importantly, that we in TAFE have the most diverse experience of mediating between, and building consensus among, the diverse perspectives of those in the new system. We know how complex the national system is and how to make it work. And if it is to work, it must have our first-class TAFE systems as its core, as its prime deliverers, meeting industry needs of course, but also meeting social needs. This includes providing better opportunities for the groups who were part of the focus of this conference, including Aboriginal people, people in distant parts of Australia, migrants, women, people with disability, as well as the individual needs of every Australian who wants to come to us to learn.

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Towards the best of both worlds

Models for governance of TAFE colleges

Ian C Hill
Executive Director,
Department of Employment, Vocational Education and Training

At a recent Australian Institute of Management Harvard Business seminar held in Perth, participants were informed of the relative merits of various organisational structures. In terms of the philosophy broadly underpinning structural arrangements, the Harvard analysis demonstrates that:

- controlled, centralised bureaucracies fulfil highly complex knowledge and information requirements, in a stable environment; while
- autonomous, entrepreneurial organisations are very dynamic, but fulfil only simple knowledge and information imperatives.

Participants were informed that many large corporations had devolved functions and responsibilities, and moved the structuring subsidiaries under an autonomous model of management.

In so doing, many of the desirable characteristics of the older models of governance were lost, not the least of which was information which was necessary to inform quality corporate decision making. The rate of return from business units reduced.

The challenge for VET chief executives

The challenge for the vocational education and training sector over the next decade, I suggest, is to achieve *the best of both worlds*: a collaborative organisational structure

and culture which is *dynamic*, yet fulfils *complex* information and knowledge requirements required of it by government.

The debate over structures and governance is timely in Western Australia. Since the election of a new coalition government, on a mandate of increased autonomy for the TAFE college system, the debate has focussed on whether to adopt one or the other of the two models of college governance we have here.

The West Australian experience

Two important considerations pertain to the issue in Western Australia: the *Vickery Review* was commissioned to advise on structural arrangements for the education and training portfolio. The *McCarrey Commission* inquired into State public sector finances and, in that context, examined the structure of government enterprises.

Both reports were released almost concurrently, and stand to have great bearing on the future governance of our VET system in Western Australia.

TAFE colleges

The Department of Employment, Vocational Education and Training administers a system of nine TAFE regional colleges—four metropolitan multi-campus colleges, four rural colleges, and one external studies college.

The role of the *college director*, arguably, has not changed substantially from that of a *college principal* which it replaced about three or four years ago. The fundamental difference being that, where a college principal was required primarily to administer some of the internal operations of the college, often under the policy direction of an intermediary, such as a central office superintendent, a director is required to have a broader external focus, with a greater degree of direct industry interaction to influence the college operations.

The Vickery report was critical of the department's control over college operations, which are governed by the provisions of the Education Act. The same Act governs the operations of the Western Australian schools system, and has only now been accepted as anachronistic as far as the TAFE sector is concerned. Under the Education Act, a college director is required to:

- assess and determine the eligibility of students for admission to a course of study, or refuse permission on specified grounds;
- suspend a student pending an investigation by the CEO;
- be responsible for the custody of school buildings and furniture;
- make arrangements for the cleaning of school buildings and necessary minor works;
- evict any person from the school premises who is abusive to teachers or who hinders or disrupts the teaching program;
- maintain school registers and records and produce such records as are required by the CEO;
- ensure that procedure for the collection of fees, enrolment, banking, roll books and statistics are strictly observed;
- establish and conduct school amenities such as bookshops, canteens, libraries etc. which contribute to the running of the school;
- not allow any person to conduct a class unless duly appointed to the school or without obtaining permission from the CEO;
- grant leave to a teacher in cases of emergency;
- report on apprentice absenteeism to employers;
- act as secretary to the college advisory committee.

Evidently, the major part of the decision making about college operations fell to central office directors and superintendents. Of necessity, much has changed since; however, the fundamental issue is that college directors often defer to the central office for routine decisions, because they have no legislative basis which empowers them to manage their operations; nor, ultimately, are they accountable for them.

The independent colleges

Western Australia also has simultaneously a governance model under which four colleges in the remote parts of the State operate as *separate statutory authorities*. These colleges are established under a separate Act, the Colleges Act, 1978, which empowers the college council, as the governing authority to:

- perform any function or duty conferred or imposed upon the college under the Act;
- act in all matters concerning the college in such manner as appears to it best calculated to promote the objects and interests of the college;
- control and manage the operation, affairs, concerns and properties of the college.

To do this, the council is empowered to appoint staff, including the college director. Under the provisions of the Act, the council, through the college director as its instrument, is accountable.

These highly autonomous operations are subject to ministerial direction, however, in limited areas specified in the Act.

Mixed governance

The existing mixed governance system is difficult to co-ordinate given the executive powers of the independent college councils. Adverse resourcing decisions by government result in strong political lobbying by local councils of ministers and parliamentary representatives. Statewide capital works planning, for instance, is fraught with difficulty and highly problematic, as the department is seen to 'favour its own' in recommending strategies and priorities to government.

Under an *integrated State delivery system*, linked to State and national priorities for training, it would be more efficient for one system of governance to operate within the State.

Ministerial requirements

Strategic direction setting

Over the last five years, the Australian TAFE sector has been recognised as a major instrument of economic, industry and labour market policy. It is required by government to contribute to making industry more competitive, the labour force more highly skilled, and enhancing the well-being of the community at large.

The sector's major client is government; college governance arrangements must enable government to direct the system to meet strategic demands foremost, while also addressing local needs. This is exemplified in the following statements from Minister Moore: '[I]ndependent colleges would mean the State itself would lose the ability to drive the training strategies'. The Minister also stated:

> *I acknowledge that a more autonomous college structure will enable colleges to better meet the needs of their local communities; however, I must also ensure that there is the capacity for the strategic economic and industrial development needs of the State to be satisfactorily addressed. The model which best delivers this will be adopted.*

Cost efficiency

A further factor influencing his considerations about college governance was cost. A structure for colleges which establishes them as independent statutory authorities brings wasteful competition (in areas of interstate and overseas commercial training), duplication, no economies of scale, and an inability to meet industry's expectation that TAFE should have the capacity to provide a statewide response. Further, implementation of system-wide strategic initiatives which the department has implemented or is planning, such as re-alignment of delivery outlets (to establish specialist centres of excellence within colleges), the enrolment management system, regional networking, and video-conferencing, would be impossible under independent colleges.

Government, in forging strategic directions, 'must have the capacity to allocate resources to areas of vital economic significance, including those which may not have the support of lobby groups (e.g. college councils)'.

Accountability A further important ministerial requirement was a structure which provided him 'with a single agent through whom government policy and strategic directional change could be effected, and who is accountable for the outcomes'.

McCarrey Commission findings

While the McCarrey report has been delivered to government, its recommendations have yet to be endorsed. Those relevant to this paper, however, are outlined below.

The statutory form of governance for colleges was not supported by the McCarrey Commission, whose report states that:

> *[T]he statutory authority is a more rigid administrative form which is not appropriate for the ordinary process of public administration (as distinct from government trading enterprises) or for carrying out functions which require the implementation of government policy.*

It suggests that, in these circumstances, non-elected members of authorities (governing councils and boards) are in a position to 'frustrate policies of elected governments or pursue their own policy agenda', notwithstanding that 'government is held accountable for the outcomes of policy decisions'.

Two of the McCarrey Commission's fundamental conclusions were that:

- governments, through ministers, are to give agencies clear direction regarding government policies and objectives; and
- there should be clear lines of accountability to ministers.

Under the TAFE college system of governance, there is a strong accountability at the expense of flexibility; under the independent colleges, flexibility is maximised at the expense of accountability to government for the implementation of policy direction.

The pathway between

Chief executives of State training systems face the dilemma outlined above. There must be a pathway in between: one which results in a collaborative, information-sharing relationship between the colleges and central office; and one which allows autonomous college management, while preserving the important advantages of a statewide network.

If college governance could be viewed as a continuum, from centrally administered TAFE colleges to the independent colleges, each model needs to be moved the other way, to a meeting point which remains to be determined.

The challenge is to find the point on the axis which allows for local responsiveness, proper accountability to government, cost efficiency, and the ability for government to set and direct change for strategic effect.

The Minister has agreed to a new Vocational Education and Training Act, which would remove colleges from under the Education Act, and Colleges Act. The provisions of the Act will be required to enshrine the spirit of autonomy with respect to college management.

Preliminary consideration has been given to the manner in which this might be achieved. For instance, the position of college director could be given specific statutory responsibilities in relation to college management, including:

- autonomy on matters relating to day-to-day college operation and administration;
- responsibility, authority and accountability (through a resource/performance agreement) for matters that influence these day-to-day matters, namely:
  - recurrent budgets
  - human resources
  - delivery of programs and services (including fee-for-service training)
  - utilisation of facilities
  - minor works;
- participation in statewide strategic planning and policy development;

- access to those central services which, because of economies of scale, would be too expensive to place in each college, i.e.:
  - curriculum development
  - specialised delivery systems, e.g. video-conferencing
  - enrolment system
  - management and information systems
  - specialist bureau services, e.g. payroll etc.;
- capability to network with other colleges on the sharing of resources, the joint delivery of programs, and the rationalisation of delivery in response to changing circumstances.

College councils could have statutory responsibilities relating to advice on the appointment of college management, college planning, and development of college profiles and resource and performance agreements.

There would need to be an overriding power in the Act for the Minister to issue directions on any matters relating to vocational education and training.

Delegation

Each college has unique characteristics. Some are more readily prepared for autonomy than others. If there should be concerns about the extent of autonomy provided to various colleges, a further option for consideration could be to empower the Minister to delegate variously the powers accorded to him under the Act. Thus, the Minister may choose to delegate to a particular college director more or less powers than to others.

The objective of the Minister's decision would be the outcome which is in the best strategic interests of the State.

Postscript

The Minister today announced a new State training system: a State Training Board, the Western Australian Department of Training, and *an integrated network of autonomous colleges*. The work to find the best of both worlds begins now.

The New South Wales model of governance of TAFE facilities

John Allsopp
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New South Wales TAFE Commission

New structures for delivery of vocational education and training have been a feature of the States' systems over the last decade. While models continue to evolve in other State systems, the New South Wales Government has adopted a system-wide approach for delivery throughout New South Wales. The purpose of the paper is to describe TAFE New South Wales' position on institutional governance.

There are four main points that I want to make in relation to the New South Wales model:

- there are strong accountability links between institutes, the CEO, the Board and the Minister;
- statewide quality systems to support infrastructure are crucial;
- our model of governance allows for a maximum ability to meet the needs of local students and industry as well as the broader state-level needs and industry requirements;
- recognition that diversity in management styles is good if managed within broad frameworks.

My understanding of the term governance is that it is the way in which organisations are structured to direct and control the actions, policies and functions of the organisation. In the case of TAFE New South Wales, it includes reconciling and balancing the demands of a reformed national vocational education and training system with the restructuring of the organisation to meet State government vocational education and training policy, and at the same time achieve government objectives for accountability, efficiency and cost

effectiveness. This complex set of demands has guided the development of the TAFE New South Wales model.

In New South Wales the system of governance involves retention of central policy making, resourcing functions and oversight of the educational and training outcomes while devolving the implementation and administration of the systems and policies to the institutes. Each institute director reports directly to the chief executive officer who is directly accountable to the Minister for the operation of the whole Commission. The TAFE Board has a role in the review of operations and advice to the Minister. This structure provides shorter chains of command for day-to-day decisions that affect a limited number of individuals, while still providing a single point for decision making on policy and resourcing issues.

The institutes are responsible for the implementation of those policies and standards which have been set by the central group within agreed education and training plans and resource allocations. One of the challenges this form of governance poses is the achievement of a productive interplay between the policy and standards setting functions and the implementation of functions.

The model of governance in New South Wales has real benefits in terms of the quality of the vocational and educational training provision, efficient and effective resource utilisation, long-term planning and accountability. Quality assurance is achieved through the provision of quality systems that ensure consistency in education provision throughout the State and is a strength of our system.

We believe that the balance between central policy making and the devolvement of day-to-day decision making which allows for diversity is the right mix. It allows for flexibility within a core set of parameters.

Historical perspective

The TAFE system in New South Wales has evolved as a result of various government initiatives over recent years.

Historically the New South Wales Government has accorded a high priority to vocational education and training and has provided very strong support in terms of resource allocation; for example the New South Wales State Government provides over 72 per cent of the funds spent in New South Wales (this includes recurrent and operating revenue and capital revenue).

It is also well known that TAFE New South Wales provides a major proportion of the vocational and education training effort in this country. The system in New South Wales concentrates on providing vocational education and training with almost 99 per cent of the TAFE New South Wales provision in Stream 2100-4500.

There is also strong support from the community for the way in which the TAFE New South Wales system is organised, its leadership, its programs and the mechanisms by which these programs are delivered and the way that it provides a solid model for the vocational education and training sector.

New South Wales has evolved over the past decade from a system of individual colleges managed centrally, to a system of colleges clustered within a regional system, to a system of 24 networks, to the current institute system. Two features have remained constant throughout these changes:

- a central system of policy direction and resource allocation;
- the selection of managers with proven records in educational leadership.

Since 1990 training divisions have been established replacing the old school structure which were based on historical occupational clusters of course groupings and technical disciplines. The training divisions are based on industry classifications and basic educational building blocks and are now part of the institute structure. The training divisions are responsible for developing system-wide curricula that meet industry needs and setting quality specifications for equipment, staffing, facilities and teaching requirements and assessment practices. Training divisions are not responsible for recruitment of teachers but are responsible for the setting of competency standards and teaching qualifications required.

An institute is a management structure, based on geographical areas, within which groups of colleges are managed. The number of colleges in the institute varies from six to seventeen. The eleven institutes have responsibility for the day-to-day management of operations and have input into policy directions and strategic planning through executive management mechanisms. The thirteen training divisions are located within four of these institutes. In addition the Open Training Network (OTEN) provides services to all the institutes.

Institute directors have been given appropriate delegations for decision making within operational areas. Each institute director determines the range and mix of courses, staffing, budget allocations, facilities, maintenance and strategies to serve the needs of the local community and its industry base.

The strength of the institute structure is that it removes the layers of administration present in previous network and regional models. It provides an interactive level of management where all college or campus managers are part of the institute management team. It allows a greater ability to respond to local industry and community needs and allows for diversity of internal management structures. Some institutes are arranged on a faculty model, others use a federation of locations as their organising base.

The new structure is a model whereby all the colleges within the institute interact so that the sum of the delivery is greater than that of the constituent colleges operating independently. The Open Training Network aids in extending this ability. The cross-college quality control, marketing, rationalisation of resources, course delivery and use of facilities all contribute to the synergy.

The institute framework allowed devolution to take place within a corporate model of delivery to the institute and its component colleges.

Over the last five years significant reforms have occurred within the TAFE system that have strengthened the focus of effort into vocational education and training programs based on competencies required in the workplace.

Concurrently administrative infrastructures have been revised. This included shifting administrative and management staff to institutes to be closer to and better able to support teachers and students. Revision and integration of a range of management information systems occurred. These major system upgrades were feasible within an integrated system of governance.

Strengths of the New South Wales system

The strength of the New South Wales system provides advantages to students, through improvements to the way in which provision is planned and delivered and the systems that underpin the delivery of programs.

Students have a guarantee of quality of course delivery. Students are able to start their course at one campus and have the guarantee that without detriment they can finish the program at another campus or via a different delivery mode or separated by time. They have access to standard information about the range of programs the TAFE New South Wales system can offer at all locations which gives them choices based on full and complete information. The institutes have a capacity to change the range and mix of courses and can provide more flexible arrangements in course offerings and timetabling, again providing choices to students. Qualifications gained by students through any one of over 100 campuses in New South Wales are recognised by employers everywhere.

There are advantages for industry in this system of governance. Industry groups can be assured that the students have been required to study and gain competencies to a common set of standards that industry has agreed is necessary. The content of the curricula and the assessment schedules have reached quality standards that do not vary from location to location.

The educational advantages can be grouped into human resources administration and curriculum activities. The quality of teachers and educational managers is enhanced as there is a wide range of expertise within the whole of the TAFE New South Wales system; greater innovation and development can be achieved through the institute's capacity to draw upon a greater stock of educational capital. Significant advantages occur in the area of

curriculum development, accreditation, program review, liaison with industry groups, and education planning. These features of the system mean that industry and students receive the best programs.

Within this system there is flexibility to customise programs to accommodate local student and industry needs, for example with respect to timetabling or work experience.

TAFE New South Wales has a number of features that contribute to its strength. These can be grouped into relationships with external agencies; resource effectiveness; responsiveness to change; efficiencies in operations and development and maintenance of strong support systems. These are strengths of a corporate decision-making model. The strength of the devolution model is used to increase responsiveness to local customers without losing sight of the statewide plan. A creative tension exists in maintaining the balance between these two models.

Common management information systems are used throughout the State and supported by the central support groups that develop and maintain the systems with input from user groups. The central development and maintenance of these systems prevents the development of costly local systems that are incompatible and incapable of providing corporate level data.

Marketing strategies and campaigns are co-ordinated through a central point so that potential students and employers are not confused. Economies of scale are achieved in the cost of promotions. For commercial courses to industry there is only one contact point and a common formula used to work out the price of the program. This eliminates companies who are 'shopping around' from engaging TAFE staff in busy work that is unfruitful.

Curriculum development, the development and maintenance of standards for teachers and other resources used in programs, course accreditation, review and development of education policies, are the responsibility of experienced staff with adequate resources to ensure that the best is achieved. In New

South Wales we believe that these functions are a corporate responsibility to be undertaken for the statewide system.

TAFE New South Wales has established a number of groups that are aimed at ensuring that there is consistency in the provision of programs and ensuring that organisational objectives are met. These units are the Quality Assurance Unit and the Comprehensive Audit Unit. They play a valuable role in ensuring that the development of new systems or changes to existing systems will result in better delivery of education and training programs to customers. The units are skilled in assessing systems and allow operational managers to focus on delivery.

TAFE New South Wales has not bestowed independence onto the institute directors in terms of policy setting. We have taken a collaborative approach where within a framework of strategic policy, directors are able to allocate given resources appropriate to meet known priorities and objectives. It leaves them free to experiment with flexible delivery and timetables and teaching resources. It provides freedom to introduce new procedures in work practices and to develop management systems that best suit their local needs but within the overarching framework of a State TAFE system. This has resulted in collaborative arrangements between campuses and between institutes.

One of the most important features of governance is strategic planning. The best results are achieved if planners have strong positive relationships with operational managers as well as external agencies. The corporate model in TAFE New South Wales allows for this to occur.

TAFE New South Wales' system of governance provides confidence to other systems that the necessary support systems are in place to carry through agreements. For example, the Department of School Education and the universities can be confident that agreements reached regarding credit transfers, recognised prior learning, and mix-mode deliveries will be honoured throughout TAFE New South Wales no matter where the student is located. Local TAFE managers are held accountable to ensure that these agreements are honoured.

In summary then I believe that the system of governance in New South Wales provides strong accountability measures throughout all levels of the system, from the local students and industries up to State and national government levels. Devolving decision making on operational matters provides for greater customer service and satisfaction. It recognises diversity in management practices and diversity in meeting customers' needs. And finally our model allows for the development and maintenance of quality infrastructure systems.

And what of the future?

The system needs to evolve responsively but keep a clear focus on core business of vocational education and training. Currently as the national system establishes itself we are seeing a strong emphasis on 'industry needs'. Whilst this is proper, there could be a danger of simplistic responses rather than a recognition of the diversity and complexity. For example, the current State profiling process where there is a dominance of describing and defining responses to industry groups. We must not forget the individual. They determine their own career paths and training needs and these do not 'fit' industry categories; for example almost 24 per cent of the provision in TAFE New South Wales is in Streams 2100 and 2200, the pre-vocational areas. Many students are enrolled to gain qualifications to shift occupations.

Any system of governance which fails to respond adequately to this aspect of our public responsibility will limit its capacity to enrich the skills base of Australia's future workforce.

I would support a position that states that the TAFE system must provide a capacity for the strategic planning of provision that ensures that the governments of the day can drive the vocational education and training agenda. Therefore there must be an ability to implement statewide strategic initiatives and a structure of governance that has only one agent through whom government policy and directional change could be effected and who is accountable for the outcomes. The New South Wales model achieves this.

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Tertiary education and training in New Zealand

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This country paper for New Zealand follows the requested framework, viz:

- *forces and factors driving change* (in policy, practice, and student choice in recent years);
- *nature of the change* (related to the three sub-themes of: managing the transition and the system; learning objectives and program structures; quality assurance);
- *outline of tertiary education and training sectors* in New Zealand.

In this paper, higher education is taken to include only the university component of the New Zealand tertiary education and training system, but the discussion also focusses on institutional delivery through polytechnics and colleges of education, because in New Zealand the distinctions between universities, polytechnics, and colleges of education are becoming increasingly blurred.

Equivalences of the dollar are: NZ$1.00 = A$0.85 = US$0.55, as at 6 October 1993.

Forces and factors driving change

The transition from elite to mass higher education is taking place in the context of major social and economic change that has characterised New Zealand over the last decade.

These changes include:

- financial market deregulation and reform (Public Finance Act 1989);
- public sector reform (State Sector Act 1988);

- reform in education at all levels, including tertiary (Education Act 1989 and its subsequent amendments; Industry Skills Training Act 1992).

Financial market deregulation and reform

Significant changes to the direction of economic policy in New Zealand were made following the 1984 general election. The regulation of financial markets was substantially reduced and foreign exchange controls were removed. Controls over goods and services markets were also substantially reduced. Labour market reform has been introduced more recently, but is now well advanced.

New Zealand now has one of the most open, deregulated economies within the OECD group and in the world. Nevertheless, low commodity prices and an increasing external debt burden has required successive governments to place tight restrictions on State expenditure on tertiary education and training, including higher education.

Public sector reform

Major reform of the public sector has taken place within this context of financial market deregulation and reform. Legislation has placed certain commercial operations in the public sector (i.e. state-owned enterprises) on the same basis as private sector organisations, and defines the framework for a new relationship between departments/crown agencies and ministers.

Legislation also prescribes financial management reforms for departments/crown agencies (which include universities). These reforms focus on government specifying outcomes, and selecting outputs that contribute to those outcomes. Thus all New Zealand State tertiary institutions, including universities, polytechnics, and colleges of education, specify in a statement of objectives the set of outputs they can deliver, and become responsible for delivering those outputs agreed with the Minister of Education. Financial reporting is required to be in terms of accrual accounting.

Reform in education at all levels, including tertiary

Within the general context of public sector reform, there have been substantial changes in education, beginning with the Picot report (1987). This report resulted in the *Tomorrow's school* policy, characterised by the devolution of school management to Boards of Trustees comprising mainly parents, the demise of a centralist Department of Education and ten education boards, and the development of a small policy Ministry of Education, an Education Review Office, the New Zealand Qualifications Authority, and certain other agencies with operational functions from 1989.

The tertiary education and training system over the 1980s has been the subject of multiple reviews of its component parts, precursors to the framework document *Learning for life* (1989). Its provisions were enacted in enabling legislation in 1990. The objective of this legislation is to give tertiary institutions, including the universities, as much independence and freedom to make academic, operational and management decisions as is consistent with the nature of the services they provide, the efficient use of national resources, the national interest, and the demands of accountability.

A central feature of the *Learning for life* policy framework is that different types of institutional provider of tertiary education and training, i.e. university, polytechnic, college of education (and, since 1993, wananga), are treated consistently in terms of autonomy, funding, governance, and reporting requirements. Prior to 1990, each tertiary subsector was funded and regulated differently; since 1990 all have been treated consistently under legislation, which, however, defines their particular characteristics.

The present government when elected in late 1990 initiated a further series of reviews, implemented as new policies through successive parliamentary appropriations. The new policies affecting the universities include the *Study right*, reforms of the system of student allowances, and implementation of a student loan scheme. State-funded labour market training programs have also been subject to extensive review since 1990.

The government also decided in principle to introduce a capital charging scheme for tertiary institutions,

including the universities. The scheme is now scheduled for implementation in 1995, and, by making the cost of capital transparent, is expected to encourage tertiary institutions to be more efficient in their use of capital resources.

Expansion of the tertiary/ higher education sectors

By OECD standards, New Zealand has historically had a low participation rate in tertiary education and training, including higher education (but comparable with rates for Australia and the United Kingdom). Increased participation in tertiary education has been a priority of successive governments since 1994. It has been explicit government policy since 1994 to encourage growth in tertiary education and training.

Growth in equivalent full-time students (EFTS) in tertiary education, and in the universities themselves has averaged around 8 per cent per annum over the last decade, as the table shows:

Table 1: Funded EFTS

Year	Universities	Polytechnics	Colleges of education	Private training establishments	TOTAL
1980	37 847	21 469	6 360	nil	65 676
1985	42 219	26 462	2 784	nil	71 465
1990	59 769	43 125	6 205	nil	109 089
1994	72 027	52 311	6 708	(est) 950	131 986

The actual number of enrolments is higher than the EFTS figures quoted above; in 1992, 131 000 EFTS equated to 202 000 actual enrolments; as a rough rule, each EFTS equates to about 1.6 enrolments across the sector (somewhat lower for the universities (which have mainly full-time, full-year courses), and higher for the polytechnics (which offer many part-time and part-year courses).

Part of this growth has undoubtedly occurred because there are now limited alternatives to further education

for school leavers; factors include high youth unemployment and the unavailability of an unemployment benefit for youth under 18 years of age. Increased expectations of employers and the wider community are also encouraging growth; e.g. apprentices are now expected to have at least one year of tertiary education and training before employers have taken them on.

A feature of the funding system is that the funding follows the student. State tertiary institutions are funded on the basis of the number of EFTS that they attract, and in principle the system is student driven; competition will encourage tertiary institutions to examine their costs so as to minimise the tuition fees that they are required to charge.

A central theme to the reforms since 1990 is that tertiary (including university) students, who are likely to derive private benefit from higher education, should contribute to its costs. The student contribution has increased from approximately 3 per cent of the cost of provision in 1989 to approximately 15 per cent in 1993; concomitant support for students facing increased tuition fees has been available since 1992 through the loan scheme. About 21 000 EFTS of the 137 662 funded EFTS in universities, polytechnics, and colleges of education in 1994 will be funded by the students' contribution.

In the context of tight fiscal restraint, expansion was fully funded in 1990 and has been partially funded since by increases in the students' contribution. Students will contribute about half of the additional funding required for new places in universities in 1994, increasing tuition fees by about 40 per cent, offset by efficiency gains that the universities are able to achieve. Nevertheless the State will continue to be the major funder (meeting about 85 per cent of the costs of delivery in 1994).

Recent legislative changes have also enabled:

- the establishment and funding of *wananga*; i.e. institutions of higher education in which instruction is in *te Reo Maori* (Maori language) in accordance with *tikanga Maori* (Maori tradition). Maori, the indigenous

people of New Zealand, comprise 8 per cent of the New Zealand population;

- private training establishments to become eligible for State funding since 1992, which introduced a new element of diversity and competition for State tertiary institutions.

Table 2: EFTS bulk funding in 1993

Year	Universities	Polytechnics	Colleges of education	Private training establishments	TOTAL
1993	NZ$636m	NZ$400m	NZ$57m	NZ$3m	NZ$1 096m
1994	NZ$638m	NZ$411m	NZ$55m	NZ$5m	NZ$1 109m

The total funding in each sector depends to some extent on what courses their students are taking. Tertiary institutions that offer expensive courses such as medicine and dentistry will receive more funding per EFTS for those courses.

1990 was a 'shadow' funding year; 1991 was the first year that the EFTS funding system was implemented. In 1991, transitional arrangements helped some institutions adapt to the new funding environment. In 1991 and 1992, some of the smaller institutions received special supplementary grants to allow accelerated growth in their enrolments to help them become more viable. From 1993 the system has operated in unmodified form, although a further review has resulted in significant adjustments to cost categories to apply from 1994, particularly in teacher education.

Nature of the change

Managing the transition and the system

As noted previously, an objective of the tertiary education reforms is to give tertiary institutions, including the universities, as much independence and freedom to make academic, operational, and management decisions as is consistent with the nature of the services

Institutional autonomy: the EFTS bulk funding system

they provide, the efficient use of national resources, the national interest, and the demands of accountability.

Also, a central feature of the *Learning for life* policy framework is that different types of institutional provider of tertiary education and training i.e. university, polytechnic, college of education (and, since 1993, wananga) are treated consistently in terms of autonomy, funding, governance, and reporting requirements. Prior to 1990, each tertiary subsector was funded and regulated differently; since 1990 all have been treated consistently under legislation which, however, defines their particular characteristics.

Universities, polytechnics, colleges of education, wananga and (in modified form) PTEs are funded from Vote: Education in accordance with a funding formula based on the number of funded EFTS places negotiated annually with the Ministry of Education.

The EFTS bulk funding that an institution receives depends on the number of funded EFTS places in clusters of disciplines. Each cluster has been assigned a funding cost category based on studies of historical costs of providing tuition in that cluster of disciplines.

The level of funding is reduced in proportion to the student contribution. Thus in principle the student is faced by a tuition fee proportional to (but much less than) the actual cost of delivery. Many institutions have set standardised tuition fees which lead to cross-subsidisation among students in courses funded under different cost categories.

The EFTS funding system has replaced detailed central decision making about levels of staffing, operating grants, and capital works projects. These responsibilities now lie entirely with the councils of individual tertiary institutions.

The implementation of EFTS-based bulk funding across the tertiary education and training sector in 1990 has been well accepted by tertiary administrators (particularly in the polytechnic and college of education sectors which, until 1990, were centrally funded by the former Department of Education).

Access for students

As noted previously, a feature of the funding system is that the funding follows the student. State tertiary institutions are funded on the basis of the number of EFTS that they attract. In principle the system is student driven; also competition will encourage tertiary institutions to examine their costs so as to minimise the tuition fees that they are required to charge.

In this respect, the PTEs may have a significant role despite their limited number of funded EFTS places. The PTEs operating in provincial towns offer improved access to tertiary education and training rather than actual competition for the State tertiary institutions.

As a direct consequence of the policy to expand the sector, the participation rate among the tertiary education cohort (generally accepted to be the 18 to 24 year old group) has improved significantly from approximately 25 per cent in 1985 to 41 per cent in 1993. The rate of increase in participation by Maori in higher education is about twice that for non-Maori, which is mitigating the longstanding under-representation of Maori students in higher education.

Female students have previously been under-represented in the university cohort, but approximate parity with the number of male students has been achieved in recent years. However female students continue to be under-represented in some disciplines (e.g. engineering) and over-represented in others (e.g. health care professions), although this may reflect general societal attitudes rather than specific gender biases operating within the universities themselves.

Under the *Study right* policy introduced from 1992, there are two different rates of tuition subsidy. *Study right students* (defined below) attract a government subsidy of 95 per cent of the applicable cost category, whereas *non-study right students* attract a 75 per cent subsidy in 1994. Eligible tertiary students can qualify for the *Study right* rate of tuition study for a period equivalent to full-time study over 3 years (i.e. 3 EFTS).

It is the responsibility of the tertiary institutions to recover the balance between actual costs and the bulk funding provided through the *Study right* tuition subsidy.

Any shortfall is made up by tuition fees set by the institutions themselves.

Students eligible for *Study right* are generally school leavers, defined for implementation purposes to be those aged under 22 at first enrolment. Some long-term beneficiaries can also attract the *Study right* level of tuition subsidy.

A student allowances scheme provides taxable and non-taxable living allowance, on a non-discriminatory basis, to domestic students 16 years of age and over who are studying recognised full-time tertiary courses at accredited providers of tertiary education and training. Allowances for single students under the age of 25 years are subject to a parental means test.

To ensure that domestic students do not face financial barriers to tertiary education, the government introduced a student loans scheme in 1992. The facility is state-funded, with provision for income-related repayments through the New Zealand taxation system. Under the scheme, students are able to borrow three components covering their compulsory tuition fees, course-related expenses, and their living expenses (rebated by any student allowance they may receive). About NZ$160m was advanced to students in 1992; 40 per cent of eligible students actually took out loans; the proportion was higher for Maori (51 per cent) and Pacific Island students (73 per cent).

The required standard for school leavers seeking to enter university is based on performance in a national examination taken at the end of schooling. Mature-age students are entitled to provisional entry to university as of right under legislation. However, the universities are permitted to restrict entry to specified courses on the basis of insufficiency of resources. Many professional courses, especially the more costly ones like medicine, have restricted entry.

Student choice

New Zealand tertiary students have a choice between different kinds of institutions offering different kinds of tertiary education. All universities offer academic and vocational courses in the traditional faculties of arts,

sciences and commerce, whilst most universities specialise in one or more fields (agricultural sciences, architecture, engineering, medicine, pharmacy etc.). Polytechnics provide a diverse range of vocational education courses and cover a large and increasing number of subjects at various levels of specialisation. Colleges of education specialise in teacher training, and PTEs offer a wide range of courses, often in niche markets.

In practice, student choice is inhibited by the availability of courses mounted by the tertiary institutions, and by their limited number (except in the metropolitan cities there is often only one tertiary institution serving the locality). This restricts the scope for genuine competition among tertiary institutions.

Universities have incentives to expand or contract existing courses and to develop new courses in response to student demand, which will reflect in a general way the future requirements of the New Zealand economy. There is no overt attempt to match graduate supply with predicted future labour market requirements, nor to undertake centrally controlled workforce planning.

Additional funded EFTS places are allocated on the basis of each institution's performance, including past enrolment trends, and the Ministry's assessment of their ability to enrol future students, but taking into account ministerial priorities (e.g. in 1993, some funding priority was accorded marginal growth in courses in science and technology in preference to courses in commerce and the arts/humanities).

Foreign students studying at New Zealand tertiary institutions

A university, polytechnic, or college of education is able to enrol foreign students in any course, provided that enrolment does not exclude a New Zealand student from enrolling in the same course, and tuition fees set by the council have been paid. The tuition fee may be the council's estimate of the marginal cost of providing tuition. A foreign post-graduate student undertaking a course which is wholly research may be eligible for an additional tagged post-graduate research tuition subsidy.

Tertiary institutions are able to subsidise the tuition fees of foreign students from the general revenue of the council, excluding EFTS bulk funding provided for domestic students. The requirements of institutions which enrol foreign students are set out in legislation. Citizens or permanent residents of Australia and certain Pacific Islands, and students on approved exchange programs, are enrolled as if they are New Zealand students.

Learning objectives and program structures

Curriculum development and its delivery

Universities are controlled by their own councils, and under legislation have maximum autonomy consistent with the requirements of accountability for their public funding. Each university determines its own programs, generally through an academic program's subcommittee of council. The council is also responsible for approving course regulations and for maintaining the equivalences of courses for degrees and other qualifications.

The balance between specialised professional and academic aspects of the curriculum, although determined by the university, will be influenced by the reality that actual funding follows EFTS enrolments.

As a result of its geographic features, New Zealand has developed a strong tradition of providing extramural/distance learning. Two large institutions (Massey University, the Open Polytechnic of New Zealand) have specialised in this delivery mode, although many tertiary institutions are increasingly using new technologies to provide off-campus tertiary education (e.g. the University of Otago).

Of relevance to a potential mismatch between the expectations of university teachers and the knowledge of entering students, is the debate now taking place within several universities of the balance between maximising EFTS growth (by implication linked to lowering entry standards) and the achievement of academic excellence.

As noted previously, the entry standard for school leavers to university is based on performance in a national examination taken at the end of schooling, and under legislation is prescribed by the New Zealand Qualifications Authority (NZQA) in consultation with the

New Zealand Vice Chancellors' Committee (NZVCC). A marginal increase in entry standard will apply from 1994.

The colleges and the polytechnics set their own standards for entry, which for the polytechnics range widely, dependent on the level of the particular course.

Tertiary qualifications

The New Zealand Qualifications Authority (NZQA) was established in 1990, after the Ministry of Education, as an outcome of the *Learning for life* policy originating in the education reforms of the late 1980s. NZQA is in the process of implementing a consistent and coherent qualifications framework. This framework recognises competencies acquired either in the senior secondary school, through courses offered by polytechnics and PTEs, from systematic training offered by accredited industry providers, and previous work experience.

The universities are maintaining their traditional systems of academic and vocational awards, and are permitted by legislation to carry out their own processes of course approval and provider accreditation (by their national sector organisation—NZVCC) which would otherwise be functions of NZQA. This devolution of function is in the process of being extended to the Association of Polytechnics of New Zealand (APNZ) for the polytechnics and to the New Zealand Council for Teacher Education (NZCTE) for the colleges of education.

Prior to the education reforms, universities were the only tertiary institutions that could offer degree programs. Other institutions are now able to offer degrees, subject to accreditation/approval being obtained from the NZQA (and, at some future date yet to be determined, from an academic programs subcommittee of APNZ). However, approval by NZQA does not guarantee an allocation of EFTS funding, which is a separate responsibility of the Ministry of Education.

There is an increasing recognition of the need to provide articulation and cross-crediting arrangements among different providers of tertiary education and training. As an illustration, a number of New Zealand provincial polytechnics are now recognised by universities as providers of their first year courses.

Seamlessness

The Minister of Education has in 1993 developed a vision of a seamless education system in which there would be no obstructive boundary between senior secondary and tertiary education and training. A secondary school student would, for instance, be able to undertake components of his or her education at school, in a polytechnic or university, in industry-based training, or with a community training provider or private training establishment under the Minister's proposals for a seamless system.

A key issue is the consistency of funding across the secondary/tertiary interface, which is likely to require some form of EFTS-based funding in the senior secondary school. There is strong opposition to the introduction of bulk funding into the school sector from vested interest groups (mainly teacher unions), although it is well accepted in the tertiary sector.

Quality assurance

Although the reform of tertiary education and training has given tertiary institutions, including the universities, greater autonomy, the requirement of accountability for the use of State funding has also been strengthened.

Every State tertiary institution is required to have a charter of goals and purposes, submitted to the Ministry of Education for approval by the Minister of Education. The Minister may, on his/her own initiative, suggest an amendment to an institution's charter, but is required to approve it unless satisfied on reasonable grounds that there is reason to withhold approval.

The financial management reforms noted previously focus on government specifying outcomes, and selecting outputs that contribute to those outcomes. Universities, polytechnics, and colleges of education to qualify for EFTS bulk funding, are required to specify in a statement of objectives the set of outputs they can deliver, and become responsible for delivering those outputs agreed with the Minister of Education. Financial reporting is required to be in terms of accrual accounting.

The statement of objectives include projections of the number of EFTS places that an institution is seeking EFTS funding for in various cost categories. In addition

to this statement of objectives, the institution is required to submit a list of performance indicators that its councils consider will enable the preparation of a statement of service performance, as required by the public sector financial management reforms previously outlined.

The institution is also required to table in parliament an annual report. This must include financial reporting which meets generally accepted public sector accounting standards, an audit report by the Audit Office, and a statement of service performance in terms of the performance indicators previously specified.

The Ministry of Education monitors statements of service performance for the purpose of ascertaining whether the outputs achieved by institutions match the outputs for which they have been funded in both quantitative and qualitative terms.

A value-for-money audit of the colleges of education was undertaken in 1992 by the Audit Office, but is flawed, in the view of the Ministry of Education. Further consideration is being given to value-for-money audits and how these might be conducted.

The institutions themselves have a clear interest in the maintenance of quality, and the national sector organisations (particularly the New Zealand Vice Chancellors' Committee for the universities) are enhancing long-established processes for internal and inter-institutional quality audits.

There is currently no intention to introduce any system of ranking institutions on the basis of comparative performance based on performance indicators or any other device. However, the achievement of previous EFTS targets is taken into account in allocating additional funded EFTS to a growth tertiary education system.

Outline of tertiary education and training sectors

The education legislation recognises four kinds of State tertiary institutions: universities, polytechnics, colleges of education, and wananga.

Universities

There are seven universities in New Zealand: the University of Auckland, the University of Waikato, Massey University, Victoria University of Wellington, the University of Canterbury, Lincoln University, and the University of Otago.

All universities offer courses in the traditional faculties of arts, sciences and commerce, whilst law and music courses are available at Auckland, Victoria, Canterbury and Otago. Most universities specialise in certain fields. The University of Otago provides courses in medicine, dentistry, surveying, physical education, and pharmacy; the University of Canterbury in forestry, engineering and fine arts; Lincoln University in topics related to agriculture and horticulture; the University of Auckland in architecture, planning, engineering, medicine, optometry, and fine arts; and Victoria University of Wellington in architecture, law, public administration and social work.

Massey University offers courses in agriculture, horticulture, food technology, and veterinary science, as well as extra-mural tuition in a wide range of subjects throughout New Zealand. Conjoint programs leading to the Bachelor of Education degree and Diploma of Teaching are available at several universities in association with local colleges of education. The Hamilton Teachers College in 1991 amalgamated with the University of Waikato to form the School of Education. Several other colleges of education are considering their amalgamation with the local university.

Universities are controlled by their own councils, established under legislation drafted to maximise their autonomy consistent with the normal requirements of accountability for public funding. Each university sets its own programs, and each university council sets its dates for terms or semesters. All matters relating to management are the responsibility of the council, which represents the interests of staff, students, and the wider community. The council is also responsible for approving course regulations and for maintaining the equivalences of courses for degrees and other qualifications.

Polytechnics

Over recent decades, the delivery of vocational education and training has shifted from the (compulsory) secondary education sector to the continuing education sector. Training formerly provided by technical high schools is now provided by polytechnics. Polytechnics provide a diverse range of vocational education resources and cover a large and increasing number of subjects at various levels of specialisation.

There are 25 polytechnics in New Zealand. These are: Northland Polytechnic, Carrington Polytechnic, Auckland Institute of Technology, Manukau Polytechnic, Waikato Polytechnic, Bay of Plenty Polytechnic, Waiariki Polytechic, Tairawhiti Polytechnic, Hawkes' Bay Polytechnic, Wairarapa Community Polytechnic, Taranaki Polytechnic, Wanganui Regional Polytechnic, Manawatu Polytechnic, Whitireia Polytechnic, Central Institute of Technology, Open Polytechnic of New Zealand, Hutt Valley Polytechnic, Wellington Polytechnic, Nelson Polytechnic, Tai Poutini Polytechnic, Christchurch Polytechnic, Aoraki Polytechnic, Otago Polytechnic, Telford Polytechnic and Southland Polytechnic.

Polytechnics are controlled by their own councils. Members of polytechnic councils represent business, industry, local authorities, universities, women's and ethnic groups, as well as wider education and community interests.

Colleges of education

There are five colleges of education offering courses in teacher training, situated in Auckland, Palmerston North, Wellington, Christchurch and Dunedin. The School of Education at the University of Waikato also offers teacher training. Palmerston North College of Education and Massey University are negotiating towards amalgamation.

Teacher training in early childhood education and Maori language is also offered by other tertiary providers.

The colleges of education, like the universities and the polytechnics, are controlled by their own councils, established under legislation drafted to maximise their autonomy consistent with the normal requirements of accountability for public funding.

Wananga

Wananga are able to provide tertiary education and training, whilst assisting the application of knowledge regarding *ahuatanga Maori* (Maori tradition) in accordance with *tikanga Maori* (Maori custom). It is anticipated that wananga will qualify for funding on the same basis as universities, polytechnics, and colleges of education from 1994.

Private training

There are several thousand private training establishments (PTEs) in New Zealand, of which several hundred are registered with the New Zealand Qualifications Authority.

PTEs which enrol foreign students are required by law to be accredited by NZQA and to have course approvals for courses of more than three months duration. The legislation provides protection for foreign students who pay tuition fees in advance.

State funding has been extended to subsidise certain programs in private training establishments since 1992 on a similar basis to State tertiary institutions. The same levels of accountability are required. A contestable pool of NZ$5.0 million will be available in 1994 on a contestable basis. A total of 25 private training establishments met the criteria set by government and are to receive funding from the pool in 1993.

PTEs offer a wide range of courses, often in niche markets. Despite their limited number of funded EFTS places, the PTEs operating in provincial towns offer improved access to tertiary education and training, rather than actual competition for the State tertiary institutions.

Essentially similar standards of accountability apply under legislation for private training establishments as apply for universities, polytechnics, and colleges of education, in respect of those courses that are in receipt of State funding.

Labour market training programs

In New Zealand the State funds a range of training programs which may be industry based or offered by training providers accredited by NZQA. The Training Opportunities Program (TOP) is targetted at trainees who did not particularly benefit from a school education. TOP is offered by approved providers (which includes some polytechnics), and who receive funding allocated by a process of competitive tendering managed by the Education and Training Support Agency (ETSA), a crown agency established at the time of the education reforms.

The government is also encouraging systematic industry-based training through a network of industry training organisations (ITOs), which will allocate funding to training providers and for training needs analysis from a contestable pool largely drawn from EFTS funding previously allocated to polytechnics.

Polytechnics will be able to bid for funding from ITOs; the new funding arrangement is designed to ensure that polytechnics are responsive to the training requirements of industry.

Linkages between the sectors

Reference has already been made to the breakdown of the school–tertiary–industry barriers inherent in a seamless education system.

Barriers between the three principal tertiary institution sectors are being broken down by the introduction of a common funding system, and by their recognition as equals under legislation, albeit with distinct functions also described by legislation.

A common qualification framework is expected to enhance consistency and facilitate student mobility between sectors, even though university qualifications may remain outside of (but become increasingly integrated with) the qualifications framework for the foreseeable future.

Main trends in the sector over recent years

The major trends have already been identified in this paper as including:

- expansion of the tertiary/higher education sector, partly funded by the student contribution;
- improved access/choice for students;
- increased autonomy/enhanced accountability for providers of tertiary education and training (including universities);
- greater funding consistency across the tertiary education and training sector through the implementation of an EFTS bulk funding system;
- reduced funding per student/increased student contribution;
- moves towards a seamless education system.

Aboriginal education and training into the 21st century

John Lester
NSW TAFE Commission

As Australia re-skills its workforce to cope with the demands of an ever expanding need for an internationally competitive industry base, the timing of Aboriginal training outcomes has never been more vital or demanding.

If Australia and in particular participants at this conference don't get it right now, then Australia stands to compound the fact that Aborigines will remain for all time as Australia's second-rate citizens. The chances of peaceful and productive interaction between black and white Australians will become impossible. The very foundations on which equitable societies exist will be continually slanted and enshrined against Aborigines.

Now, more than ever before, Aboriginal people need the skills and education to rightfully take their share of increased Australian productivity and subsequent increased vocational outcomes.

Aboriginal people empowered with the most current vocational and further education training need to be first employed. We are sick of being the last hired and the first fired in our workforce. As the modern Australian industries emerge in ever increasing technological vocational environments, the traditional labour intensive jobs in which Aboriginal people on the whole were employed are quickly disappearing.

To achieve such outcomes TAFE Australia-wide needs to actively promote and provide comprehensive strategies which will guarantee Aboriginal people their rightful and

equitable share in the vocational opportunities of Australia's economic growth.

Post-compulsory education and training

I think it would be quite fair to say that Aborigines have been denied equitable access to this sphere of educational opportunity since the commencement of general education to Year 12 and from the commencement of the apprenticeship scheme.

This statement is readily exemplified in the ever-present statistical reviews of outcomes in the HSC and in employment of Aborigines in trades areas. Oh yes, we can all think of the exceptional students who have gained success at this level, but they are indeed the exception.

This fact has been further compounded in New South Wales with the implementation of Joint Secondary Schools and TAFE programs, which have been instigated in this State for nearly a decade. The program has been targetted to senior high school students, which in reality meant few Aboriginal students gained access to the program because of poor retention rates past Year 10.

While employment of Aboriginal people into trades has increased marginally over recent years, it is still well below the acceptable levels of equitable outcome that are required. This is yet another area where Aboriginal people have not experienced equitable outcomes in this post-compulsory educational domain.

Australian traineeships over recent years have also endeavoured to provide opportunities for a mixture of on-the-job and off-the-job TAFE training for this client group. My understanding is that the success amongst Aboriginal clients has been limited.

Obviously the whole nature of training for the 16 to 19 year age group is set to be revolutionised by the processes and programs which Carmichael has espoused.

Aborigines and Carmichael

It is my understanding that Carmichael has clearly not addressed fully the appropriate delivery of services for Aborigines in this key age group. What is more frightening is the fact that he perceives that the Aboriginal issues should be addressed some time in the future, around the year 2000.

Aboriginal clients in this age group cannot wait for the year 2000 to have their issues addressed. We need to act now! Aboriginal populations in this age bracket are increasing at a greater rate than that of non-Aboriginal Australians and this only compounds the difficulties and urgency required to address these issues immediately.

Aboriginal people cannot afford to play 'catch up' any longer. We must be part of any resolution to improve the general educational and training opportunities for the community as a whole. In fact I have argued for many years that to effectively improve Aboriginal training outcomes, Aborigines need to be pioneering innovative programs which will not only improve the situation for Aborigines but for society as a whole.

It is very interesting to note the enthusiasm for some of the 'fresh and innovative approaches' being put forward by the New South Wales Department of School Education. These approaches include programs which incorporate closer links with TAFE colleges, an extended HSC mode and the composite HSC result over up to five years of study. These are all interesting when you consider that I drafted these very issues into a document for Aboriginal rural students in New South Wales in the early 1980s when I was executive officer of the New South Wales Aboriginal Education Consultative Group.

It is pleasing to see that these Aboriginal concepts have now reached mainstream acceptability but were not seen as viable for Aborigines back in the early 1980s.

TAFE pathways

New South Wales TAFE has developed a very interesting and potentially exciting approach to the provision of programs for the 16 to 19 year olds which will provide access to the HSC through direct vocational study in TAFE.

My level of excitement to this approach is directly relevant to a number of issues related to the program, and especially as it relates to Aborigines.

Firstly, I am concerned that I have not heard of any affirmative action which will ensure Aboriginal participation in the program from day one. If my fears prove correct then once again Aboriginal people have been marginalised in this important new initiative.

Secondly, I have serious concern with the Board of Senior Studies controlling the accreditation of the HSC as it will exist in TAFE pathways. My concern stems from the fact that this body, to my knowledge, has not been successful in ensuring curricula is available which will hold Aborigines in education past Year 10. This agency is too removed from vocational offerings to ensure that programs are appropriate for any students in this age group. TAFE should be its own accrediting agency for its programs.

Thirdly, the fact that TAFE pathways will be driven by a TER score is an issue of concern. This, I believe, will further cement Sydney University's hold over education and training in this State. I speak from experience here, as I was a member of the Board of Secondary Education and saw the power Sydney University exerted over the then Board by defining JSST programs as a separate category of accreditation for TER purposes. TAFE school options became category B options and were treated as such.

TAFE pathways should not be driven by TER scores. The schools already play too significant a role in selection process for universities. We need to look after the 80 odd per cent of students who do not wish to go, or will not qualify to go on to university study directly from Year 12.

Aboriginal students have continually voted with their feet with regard to traditional senior school offerings, and TAFE runs the risk of alienating further Aboriginal students in a similar manner if it persists with the pursuit of the HSC with a primary objective of a TER outcome. We want jobs as an outcome, not university entrance. TAFE needs to focus on vocational training for this age group.

TAFE and mature-aged students

New South Wales TAFE's most successful programs have been with pre-vocational education of mature-aged students. It has been a typical empowerment of Aborigines in the most basic of Freire's terms. I have witnessed whole communities being empowered through very successful TAFE programs which initially addressed literacy needs, and as students progressed moved them through general education into Tertiary Preparatory Courses (TPC). Again, I believe that Aborigines pioneered these programs which now meet mainstream provision needs.

TAFE in New South Wales is noted for graduating more students from its TPC programs than schools have graduated from the HSC. In addition, TAFE's outcomes from these courses were arguably far more productive in terms of further education options and vocational outcomes.

These courses must continue at any cost. They represent the most successful and powerful tool available in education and training today. Without the general raising of Aboriginal basic education we cannot expect any significant shift in vocational outcomes.

However, general education programs need to ensure that they are intrinsically linked with vocational outcomes, and the design of these programs needs to maintain this focus. Also integral to any course design must be Aboriginal studies, which assists in building self-esteem and understanding of traditional and contemporary Aboriginal backgrounds.

Competency-based training

The desirable movement towards competency-based training is not new to Aborigines. In my role as a member of the National Aboriginal Education Committee during the early 1980s I witnessed the Northern Territory's commendable efforts in program delivery to remote communities via this means.

Closely aligned with competency-based training is the concept of self-paced learning. This is also a very desirable educational objective, especially given the adult learning methodology at which TAFE is so expert.

The biggest stumbling block to both of these training initiatives is the extremely poor literacy levels of too many Aborigines. As mentioned in the above section, we need to raise the level of literacy so that Aborigines will not be left behind in the implementation of these new training approaches.

Continued efforts and strategies need to be developed and maintained to raise the level of literacy amongst Aboriginal communities. TAFE's past efforts in this regard need to be applauded and further encouraged.

Implications of Mabo

Australian society is ignorant of Aboriginal society. This has been proven with the community debate which has emanated as a result of Mabo. An ignorant community is a dangerous formula to ignite racial hatred and further polarise the Aboriginal and non-Aboriginal community.

TAFE has a major responsibility to ensure that the community as a whole is provided with the knowledge and background which will enhance race relations in this country and provide a framework for an effective reconciliation.

Given the number of TAFE facilities available, it is also ideally placed to present Aboriginal studies programs and general race relations courses to mainstream communities.

Obviously these programs should be designed and implemented by and with Aboriginal participation in all facets of development and delivery.

To ensure maximum access, these courses need to be fully exempt from any course fee and need to be effectively advertised and promoted in the community at large.

The need is immediate for these courses as heightened racial tension is being experienced throughout Australia.

Overcoming the isolation factor

Perhaps the most difficult and complex factor to overcome when delivering programs to Aboriginal people is the isolated community. Even with the well over one hundred delivery points for TAFE colleges in New South Wales, there still exist communities which are very isolated. The north coast itself has several of these communities which challenge delivery of programs. Obviously the task is even more complex in other States or in the Northern Territory, where up to 39 per cent of its Aboriginal population is living in very small, remote communities, living contemporary traditional lifestyles.

Role of Stream 1000

Aboriginal people need to control the type and nature of the training provided in these communities. This option becomes more of a process than a choice as many communities need to be exposed to the full variety of options available over a programmed time frame and strategy. Quite often the choice made will be initially guided by a level of distrust of TAFE, seen as yet another imposing government department. I have witnessed Aboriginal communities purposely opting for Stream 1000 programs as a testing process. These are courses which are meeting generally an immediate need, are felt safe to try within the community and provide a basis to assess the genuineness and capacity of the provider to relate to the community. TAFE must maintain options in the Stream 1000 courses to satisfy these initial contacts into communities.

I might say that some ten or so years ago Stream 1000 programs were the majority of programs available to Aborigines throughout Australia. I'm pleased to see that now such programs are not dominating the Aboriginal training agenda. They provide an initial important step in a process of building trust and developing a training agenda within communities.

Aboriginal training teacher facilitators

The real challenge is to provide vocationally-oriented and/or community development skills to these communities. The effective delivery of any program will depend on the level of control maintained by the Aboriginal community itself. No program should be implemented without proper consultation with the community.

I feel the best and most appropriate way of achieving this is by implementing a program to develop Aboriginal training teacher facilitators from within various culture and language groups. Where required, these teachers need to be bilingual with at least English as a second language. These teachers would require bilingual skills in literacy and numeracy as well as the capacity to facilitate further vocational training as requested by the community in which they work.

I understand that such a resource did exist in the Northern Territory, but these community development officers were generally non-Aboriginal. I have grave reservations about appointing non-Aboriginal people to such key positions of power within the community, because I have seen on several occasions these non-Aboriginal officers become the new 'educational mission managers'. This is both undesirable and an extremely dangerous position for both the individual and the community to be in. It does not lead to Aboriginal self-determination and does not foster Aboriginal development.

To achieve this we urgently require specific strategies to identify potential recruits and ensure that they are appropriately trained. Perhaps TAFE could provide this training via my suggested Diploma in Aboriginal Vocational Studies, which follows this section.

Use of appropriate technologies and modes of delivery

I understand that considerable work is underway, looking at opportunities which may be available through use of new technologies. I can only applaud and encourage this approach and trust that the use of such technologies is proving fruitful. Aboriginal communities seem quite willing in most instances to adapt to new technology, and unfortunately, in many cases such as video, it has fostered cultural genocide and breakdown of traditionally held moral codes.

The movement to competency-based training and recognition of prior learning are two approaches which I feel assist greatly in the delivery of programs to remote communities. By virtue of being able to pick up relevant modules which directly relate to the individual's or community's needs at a particular point in time, credit can be gained towards formal accredited programs. This is long overdue in Aboriginal communities. I don't know how many hours of unaccredited training have been provided to communities in accounting, but in my travels I think every person seemed to have been trained in accountancy at some point in their life. Yet none of these people had formal acknowledgement of such training and there appears to be no process of articulation into more formal courses. Aborigines, like other Australians, need to be given credit for skills and knowledge achieved.

External studies

There is little value in the pursuit of external studies for anyone who has limited literacy ability. To achieve the success required by external studies modes requires a massive effort in Aboriginal communities to raise literacy and numeracy levels. This has got to be the priority amongst TAFE providers if significant vocational opportunity is to exist.

TAFE New South Wales enrolments

The following table indicates the nature of delivery to Aboriginal students in New South Wales during Semester 1, 1993. This is the first time that accurate statistics have been available on these enrolments. These enrolments include both specially-funded programs for Aborigines and also mainstream provision. I do not have

the breakdown between mainstream and specially-funded programs. It will be interesting to assess the movement from specially-funded programs to student enrolments, as individuals, into mainstream provision.

Table 1: Aboriginal enrolments in TAFE New South Wales for September 1 1993

Training division	Enrolments		EFTS	
	N	%	N	%
Foundation studies	1 361	22.5	587	23.7
Pre-vocational programs	933	15.5	613	24.8
Basic work skills programs	647	10.7	219	8.9
Arts and media	97	1.6	56	2.3
Building and construction	226	3.7	99	4.0
Personal and community services	334	5.5	133	5.4
Computing and information services	198	3.3	29	1.2
Manufacturing	586	9.7	174	7.0
Business services	709	11.7	255	10.3
Rural and mining	244	4.0	107	4.3
Tourism and hospitality	254	4.2	82	3.3
Transport	201	3.3	54	2.2
Engineering services	247	4.1	66	2.7
Total	6 037	100	2 475	100

These enrolments indicate a significant investment into general educational programs which is appropriate given the need to increase the overall literacy and basic educational skills of Aborigines in New South Wales: 57.4 per cent of all EFTS is in this field.

With this basic education infrastructure in place it is now vital that we start concerted efforts to move Aborigines into more mainstream vocational offerings, especially in projected high-level employment opportunities. Also it would be timely to begin to develop courses which would provide self-generated employment into small business areas for communities.

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An area which requires urgent attention is management training. Only some 21 students are enrolled in management or supervision courses. Aboriginal communities urgently require management skills so that gains brought about through land rights can be turned into productive outcomes. This management training needs to include an Aboriginal cultural perspective, as my experience leads me to believe that traditional management theories and practice need to be modified to succeed in Aboriginal environments.

Communities need entrepreneurial management and TAFE has a major responsibility to provide the training infrastructure to develop such skills.

It would be worthwhile doing a comparison of course enrolments across Australia to determine what the current profile of training and education is for Aborigines.

National Diploma in Aboriginal Vocational Studies

The opportunity for TAFE to offer diplomas and even master diplomas has been raised by my own managing director, Gregor Ramsey. To date, I have not witnessed the emergence of either of these options within my own State.

With this background, I believe that TAFE is well positioned to pioneer the introduction of its first diploma in the area of Aboriginal training. TAFE appears to be more accessible both physically and educationally than any other sector of training for Aborigines. It is also probably more successful than any other provider.

Given that Aboriginal people need to take up their rightful proportion of vocational opportunities in Australia's emerging internationally competitive economy, then I am suggesting that the most effective way of doing this is via the implementation of a Diploma in Aboriginal Vocational Studies.

In a particularly abbreviated summary of this proposal, I offer the following thoughts.

The diploma will be done over three years of equivalent full-time study. It will be based on a similar structure to existing Bachelor of Arts courses at university. However, to obtain the diploma a student will need to have acquired a double major in two chosen fields of vocational study, e.g. welfare and health. A double major is seen as critical to ensure students have a wider career base and can facilitate multi-skilling backgrounds and future vocational career shifts. Major vocational options can be as wide and varied as syllabus writers can imagine. Many existing associate diplomas could form the basis of these studies.

The core of the course will be in Aboriginal studies. This is deemed appropriate to increase Aboriginal self-esteem and because a major vocational option for Aborigines is currently aligned with Aboriginal enterprise or development. This core study will be directly related to the vocational options chosen.

Students should be given various exit points which will be reflected in accreditation for stages completed. For example, if a student completes the Aboriginal studies core plus one major vocational area of study, the award may be an associate diploma. Completion of the Aboriginal studies core may equate to an advanced certificate.

Entrance into the program would be via a successful completion of HSC, TPC or defined mature-age entry.

The program should be fully supported by external studies options to ensure the broadest access to remote communities and to ensure that viable vocational options are available to individuals. Where desirable, block release and student residential accommodation should be available in each State.

Full articulation should be available within TAFE and with other tertiary providers, especially with universities. Introductory components of the core study in Aboriginal studies should be available as advanced standing for students who successfully complete similar subjects in HSC or TPC.

Conclusion

I have endeavoured to be frank in this brief paper. Currently Australia is courting the world stage to perform as an independent and economically viable nation. The potential for this agenda to be undermined is real if we cannot show clearly that we can manage less than 2 per cent of our country's population.

TAFE has an enormous opportunity to ensure Aboriginal Australia rightfully partakes of its equitable share of the economic growth and prosperity on which Australia is embarking. To achieve this we need a skilled workforce which industry will employ regardless of the colour of their skin. TAFE can provide these opportunities with some innovative thought, carefully designed strategies and the full support and involvement of Aborigines in the process.

The future is in our hands; let's take up the challenge.

The role of research in policy making

Kenneth Wiltshire
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This paper addresses a number of aspects which derive from the topic:

- the nature of the policy process;
- the nature of research;
- some of the latest information on Australian research needs in vocational education;
- some of the latest research achievements relating to vocational education in selected OECD countries;
- some personal observations regarding research gaps in current TAFE/vocational education in Australia.

The Australian policy-making process

The academic textbooks advocate a public policy-making process that is rational, comprehensive, objective, considered, and presenting a range of alternatives with means tailored to ends. In reality, Australian policy making at Commonwealth, State, and Territory levels tends to have the following characteristics:

- *Time limitations*: This has become probably the single most salient feature influencing policy making. Cabinet agendas are full, parliamentary legislative programs are clogged, decisions are required in minutes, and a generous time for discussion on a cabinet submission is half an hour. Option papers are frequently required on a day's notice and the potential for in-depth analysis is truncated. Policy making becomes a short-term phenomenon.
- *Incrementalism*: It has become extremely rare for fundamental changes to policy to occur in Australia. Incrementalism is the norm, the incremental being politically digestible, saleable and manageable.

especially given the short time frame in this country between elections.

- *Ad hoc/piecemeal consideration:* Rather than possessing any comprehensive approaches, the governmental policy-making processes have tended to be ad hoc, addressing particular portfolio areas or programs in isolation. The implications for each decision across the broad spectrum of government are sometimes spelt out in resource terms but there is simply insufficient capacity and data to be able to trace the ripple of spin-off policy ramifications through all portfolios. It has been noted for some years now that cabinet is not a particularly effective macro decision-making process, with commonly only three ministers well briefed on any submission, the proposing Minister, the Prime Minister/Premier/Chief Minister, and the Treasurer.
- *Pragmatism:* There is little time in Australian Cabinet rooms for theories or philosophies. There is also little patience with presentation of a range of options. For a variety of reasons including potential for buck passing and the time constraints already mentioned, cabinets look for pragmatic, sharp recommendations.
- *Focussing:* The ideal rational approach posits a model where advice goes to cabinet outlining a multiplicity of options, outlining the implications, advantages or disadvantages of each, and leaving it to the cabinet to make the choice. There is some evidence that this model did actually function a long time ago. Cabinet tires when more than a few options are outlined, ministers are busy and don't have time to do the weighing up that might be expected of them. Politically, ministers would rather have a firm recommendation from their advisors, if only because it delegates the weighting (or trade-off) and provides a scapegoat if the policy later rebounds. This of course is an extremely dangerous situation in a democratic society, because it means that the values of the non-elected advisors are being brought into play and being forced to perform an essentially political function. One refinement of the pattern to hit the stage recently in Australia in a big way, is the creation of mega-rationalist bodies like the Resource Assessment Commission, Industry Commission, and the like, when cabinets have them by default to turn into surrogate traders in values—a task for which they were not really equipped and which should have been handled

by cabinet itself. The same might be said of processes like that of the Ecologically Sustainable Development Committees.

- *Resource orientation:* Government policy making is essentially about allocating resources and the bottom line will be a very powerful element in any decision. Policy options need to be addressed in resource terms rather than values and those resource considerations are also invariably short term and related to the current budget, rather than longer term and statesmanlike. Our short-term election cycle and our fixation with annual budgeting exacerbate this trend.

Out of this scenario comes a clear image of our policy-making process which is overloaded, not particularly adept at handling macro decision making, and, most importantly, proceeds from the narrow and deep to the broad and shallow. In other words, policies that originate from the specialist/technical arenas are considered in a generalist, lay arena.

The nature of research: Against this portrayal of policy making can be contrasted the essential characteristics of genuine research

- *Purity:* Any research worth the name occurs within an objective framework, free from the fetters of direction which might bias the methodology or the rationale itself. The open-ended hypothesis is the ideal which the research pursues—any terms of reference are treated with the utmost suspicion. Hence the distinction between curiosity-led research and applied research but even in applied research the parameters are expected to be as open as possible. Particular problems exist in this respect for the social sciences/humanities, which are often viewed as more political than the natural sciences because of the potential they have to reveal embarrassing allocations of values and resources and question the status quo.
- *Timeliness:* Constraints of time are considered to be just as damaging to the research process as constraints of factors to be considered or weighted. The ideal approach from the point of view of the researcher is that the research should last for as long as it takes to achieve the answer, or test the hypothesis. Since some

fields of knowledge are endless and boundaries difficult to define, any attempt to impose time limitations can meet an impenetrable welter of arguments.

- *Narrowness:* The vast majority of research is carried out in a fragmented, often discipline-bound manner concentrating on narrow segments of society, industry, education etc. Often the big picture simply cannot be accommodated because of the research framework which needs to be developed to capture a highly specific phenomena under examination. Often, in the social sciences particularly, the *ceteris paribus* formulation has to be involved even though it is patently absurd.
- *Technicality:* The vast majority of research is also highly technical in nature, with its formulation, let alone its methodology, cast in terminology unintelligible to the lay person. And researchers who become particularly defensive about this element of their work lapse even further into their own world of hieroglyphics. Researchers rarely communicate in language symmetrical with policy makers' requirements. Unless exactly the right question is asked of them it is often doubtful if a meaningful answer will emerge. Of course there are many circumstances where adherence to complexity may be justified since simplification may well distort an explanation or answer.

The dichotomy

Even from this cursory and superficial outline it is clear that there can be a fundamental dichotomy between the nature of research and the nature of policy making. It is not easy to achieve symmetry between them: very few areas of public policy in Australia have achieved a happy marriage of the two, usually only in some mega/crisis issue as in medical or nuclear or environmental catastrophes.

Some further recent developments in the policy-making environment in Australia have caused even further complications in this situation; many of them will be familiar to TAFE administrators. One of the most pervasive is the internationalisation or globalisation of policy making. Decisions made everyday in Washington, New York, Tokyo, London, Brussels or Paris affect

Australia immediately. In economics, environment or education we are part of a global web of forces, laws and agreements. Australia is now a signatory to over 150 international conventions, many of them in education and labour, many of them impacting on vocational education. We are citizens of the world now and no longer have total freedom in our policy making; our researchers of course had international networks long before this globalisation of policy became so intense.

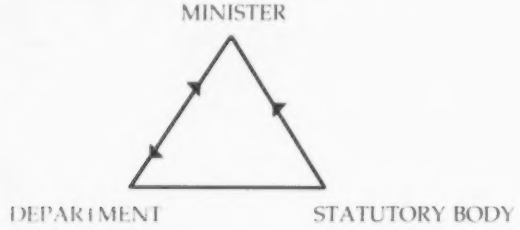
Our policy making has also become national. Apart from the centripetal forces which internationalisation brings within nations, other factors have been at work in recent years—dissatisfaction with our pattern of broken policy-making lines in the federal system, a desire for more uniformity, mobility, portability, universality, accessibility, equity, higher standards, and the capacity to respond quickly to international competitiveness. This has led to the New Federalism, its new formulations and its desire to create a national but partnership approach to policy making of the kind that produced ANTA.

Both these trends have resulted in increased roles and power for central agencies in the Commonwealth, State and Territory governments. Vocational educational policy, like most other policy areas, is subject to a significant extent to central co-ordination. This is reinforced by the presidentralisation of our system of government, whereupon in the era of government by media, the Prime Minister, Premier, or Chief Minister, is expected to be completely knowledgeable across all portfolio areas.

The situation has been further confounded by developments of the past decade or so in the political/bureaucracy interface. A Westminster system which used to offer permanent tenure for political neutrality and accompanying frank and fearless advice, has been replaced with a new doctrine which has swept Australia—the 'responsible bureaucracy' formulation. In essence it means that an elected government is entitled to a responsive bureaucracy. Combine that doctrine with the shift to contract employment, watering down previous appeal processes, the disappearance of public service boards as guardians of the merit principle, and the shift to legal and quasi-legal avenues (rather than

parliamentary ones) of keeping public sector managers accountable, and it can be seen that the political/ administrative relationship has changed. 'Responsible bureaucracy' is but a short step from a politicised bureaucracy and it takes a significantly greater degree of vigilance now to prevent this from happening, especially as the interface is more prone to subtle pressures rather than overt ones. The test to determine whether a politicised bureaucracy exists is not a rigid one but it can be fairly safely said to exist when public servants give ministers the advice they think the ministers *want* to hear rather than the advice they *should* hear. The implications for research are far reaching, especially for researchers working in the public service.

As if all of this were not complex enough, there is the role confusion which has come about in Australia regarding ministers, departments and independent statutory bodies.



In essence the typical pattern is that policy advice comes to a minister from a statutory body, advice which has been established in the framework of that body's clientele, interfaces, trends, technical expertise. The minister flick-passes the advice to the department for its opinion and the department responds against quite a different set of parameters, e.g. portfolio-wide responsibilities and priorities, global trends, public sector-wide policies and frameworks and the more sensitive political elements. Once again it is the narrow and deep, vis-a-vis the broad and shallow, but often the department will also contain some technical expertise in the area and pit that against the technical advice from the statutory body. Sometimes this can result in positive creative tension but it is more likely to unleash negative territorial dogfights. If the department is located in one

city and the statutory body in another the situation may be even more difficult to resolve. The Minister is forced to be the arbiter in this case and that, amongst other things, has caused a proliferation in the numbers of ministerial staff with a policy orientation. Not always well liked by either statutory body or department, they quickly became lepers and, without a sound career base, sitting in an overtly political position, their advice to the Minister is coloured by another ingredient—survival—an instinct with which the Minister can readily identify. Ministers also often use these staff to lock in pressure groups by separate consultative mechanisms and so an element of pluralism is brought into the apex of policy making, but *after* the advice is proffered by department and statutory body even though they may have their own consultative processes. It is a very time-consuming pattern; it causes confusion for the clients of statutory bodies because they believe they have finished their lobbying when the statutory body hears and acknowledges their voice.

These factors are all part of the production of our modern, Westminster style of government in Australia and they apply forcefully to the patterns of governance effecting vocational education in Australia today. However, they have in no way diminished, in fact they have greatly enhanced the need for research that rests squarely on exposed values for objectivity in its methodology; truth, integrity and fact in its delivery of output which, it is hoped, can be oriented to policy making in its modern complex form.

Australia's research needs in vocational education

It is widely agreed that there has been a dearth of research in the past on policy issues in vocational education in Australia. This has been very well captured recently by McDonald et al. in April 1993, in a paper entitled *No small change*. They comment:

> *Only about half as much is spent on research in vocational education and training (as a proportion of recurrent expenditure) as is spent on research in other categories of education. Furthermore, the proportion of total funding allocated to research in vocational education and training is*

extremely small, at 0.2 per cent of total recurrent expenditure for the sector.

The perceived shortcomings of vocational education and training research in Australia are:

- that current research is fragmented;
- that there is little fundamental and general issues-based research in vocational education and training;
- the research that has been carried out is not fully used;
- that the big issues in vocational education and training (as described below) need much more intensive research; and
- that there is no strong critique of vocational education and training policies and programs.

Table 3.5 from their report, appended to this paper, summarises what they see as the research needs in vocational education and training in Australia. They argue for a national strategy and the components which would underpin the strategy are categorised as:

- principles including priorities and funding, R&D organisation, utilisation of R&D;
- a body to set priorities reflecting the necessity for R&D to be tied in to desired outcomes, applied research, representation of stakeholders, and credibility with policy makers, practitioners and researchers;
- future research (with their own preferred priorities);
- the organisation and funding of research;
- fostering quality and increasing the quantity of research including collaboration and co-ordination, planning of researchers, development of an appreciation of research and funding;
- dissemination: Here they make the poignant observation that the use of new knowledge in Australia is retarded by 'a perception of most practitioners that research is not very useful, relatively little research being undertaken by practitioners, and a lack of many effective linkages between researchers, practitioners and policy makers'.

Vocational education research achievements in OECD countries

Kearns and Associates in a July 1993 study of research and development structures and practices for vocational education, training and employment in five OECD countries highlight some significant achievements occurring elsewhere, of relevance to Australia.

They observe that the six areas that receive the highest priority in R&D programs in these countries are:

1 *The learning process and learning strategies.*
2 *Competencies and skills required in modern technology-based economies.*
3 *How these skills are required.*
4 *VET efficiency.*
5 *VET for special populations.*
6 *Integration and re-integration in working life.*

They reveal that most VET agencies develop medium-term programs and some of them are given and they are appended here also. Perhaps the most interesting are the US 1990 amendments to the Perkins Act which lay down the subjects that R&D activities shall include—these are appended too—and the 1991 program of the English Employment Department Coming Out and Government Policy *(1990's: The skills decade)*, including the following priorities:

1 *More effective involvement by employers.*
2 *Raising the level and skills and qualifications for young people.*
3 *Encouraging individuals to take more responsibility by their own development.*
4 *Opportunities for unemployed and disadvantaged people.*
5 *Helping education and training provision to become more effective.*
6 *Fostering self-employment and small business growth.*

Personal observations regarding research gaps re vocational education in Australia

From my own observations and experience there appear to be a number of current policy areas which will also

dominate the scene for the next decade on which little research output seems to be available. They include:

- *The precise relationships between education and the economy:* We have some valuable work on the relationships including recent publications from EPAC, and since the welcome focus on literacy during the International Year of Literacy at the JOMTIEN Conference on Education For All, we have a clearer understanding of the linkage between literacy and the economy, but the precise inter-relationship between education and economic development seems to have eluded us.
- *The TAFE curriculum process:* No doubt it is sound, and carefully nurtured within TAFE systems, but the way in which TAFE curriculum is developed is a mystery to most people, even those in education itself. For the TAFE system to gain the professional and lay acceptance which it deserves, greater exposure of the curriculum process should occur, especially syllabus development and assessment methods.
- *The balance between 'academic' and 'vocational' education:* This is the big policy issue facing governments around the world. Different countries are pursuing different solutions. It is especially pertinent in Australia where we seek to make our country internationally competitive, where we tend to force students to decide at the age of 15 whether they want to be literate or numerate, where life choices are pressed upon them at so young an age because of an artificially contrived competitive tertiary entrance situation. It is doubtful whether the Australian education system could produce a Leonardo da Vinci. Some of the key aspects of this issue which recur but on which there seems little comprehensive research include:
  - Pathways: A mapping of the numerous tracks through the myriad courses in the post-compulsory educational system towards life skills and employment. The significance of each pathway. The extent to which students can keep their options open yet still follow their vocational inclinations.
  - The personal development process as it relates to pathways and the age at which choices can appropriately be made; the nature of people, the importance of environmental factors.

- Longitudinal studies to determine the impact of choices taken, the use of school results to predict tertiary performance, employment competency. There are very few longitudinal studies in this country.
- The symmetry between TAFE and school curriculum.
- The relevance of TAFE curriculum to industry requirements and expectations and the appropriateness of these industry expectations.
- An identification of the barriers to greater co-operation between schools and the TAFE system and methods of overcoming those barriers, including:
  - university pre-requisite subjects
  - accreditation of teachers
  - pricing policies between sectors
  - resource sharing
  - industrial issues particularly hours and awards
  - physical locations and the potential for shared resources
  - the place of national modules in both curricula
  - the potential for social engineering in schools at the time of counselling students on pathways
  - compatibility between secondary and TAFE subject delivery, assessment, certification and environment.

- The impact of articulation and accreditation agreements on course completion rates and subsequent course delivery and resource implications. The extent to which TAFE courses may be used solely for 'ranking' whilst awaiting university entry.
- The need for, and implications of, reverse articulation arrangements between university and TAFE.
- A role for TAFE as a bridging agency preparing students for all higher education, e.g. fostering study, research, oral and written communication skills.
- Equity of access to TAFE with respect to admissions procedures and service provision. (Anecdotal evidence in Queensland suggests that the use by TAFE of the university central admission procedures has significantly boosted the image and credibility of TAFE courses).
- The balance of industry/education values in TAFE.

- *The place of TAFE in* an expanding vocational education training market particularly in relation to the entrepreneurial and commercial roles of TAFE, vis-a-vis core business.
- The greater use of TAFE courses in labour market programs.

The future

All of these factors signal the need for greater research for the TAFE system. The question is where to locate the research capacity, how to focus and energise it. Some of the research can be complementary to that done for the school and university sectors, but much will have to stand alone. University researchers will only be of limited value, many are resentful of industry intrusion into education, some see an ideological move behind every call for expressions of interest, some are fearful of the pragmatic, many are time lagged behind the relevant, a lot are promotion oriented, some are 'big seven' hypnotised, and a lot are not policy oriented. On the other hand there are many academic researchers whose research skills and areas of interest would be of considerable relevance and usefulness. However, it would be ideal if TAFE could develop further its own in-house research capacity as well; there are many people in current TAFE systems capable and willing to perform this role with the benefit of vast experience; it may be simply a matter of unearthing them.

There is surely potential to share research capacity across Australia and not create duplication of effort, and other countries, OECD, UNESCO and ILO have much to offer as well.

Finally, let me take this opportunity to say thank you for all that you are doing for this nation. You provide an education that is relevant and vital to the nation's performance. You deliver equity of opportunity—both social and geographical equity—in a manner that other public sector bodies only write about. In an era of unemployment, particularly soaring youth unemployment, you provide hope for our young people and faith that someone cares about their prospects and well being. You provide pathways into the next millennium for a generation that we must rescue from

cynicism and negativity through the kind of respect for the individual that your colleges can foster. You are now facing at least a decade of phenomenal growth and a continual search for your niche in the market and your role in the education system. That growth must be guided by careful research which can inform and help shape your policy making. It's a big task for so large a body, but from what I've seen of the TAFE system and the people who manage it, you are more than equal to the challenge.

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Does research influence policy?

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It has become a truism to say that vocational training is in a constant state of flux. Consider some of the current policy issues which are having a strong impact on training systems:

- competency-based training and assessment
- national framework for accreditation
- key competencies
- administrative restructuring
- national curricula
- public accountability
- articulation.

Although many of these were the outcomes of working parties, some of which commissioned 'research' studies, it is fair to claim that most are acts of faith based on dogma. Let me justify that by taking one example: key competencies.

A major assumption by key competencies proponents is that the competencies are 'generic' and hence transferable. However, a large quantity of early research was done into 'transferability', a good summary of which is provided by Stones (1966):

> *What is the significance of the phenomena of transfer for the teacher? First, it should be stressed that only where there is fairly close similarity between stimulus situations can transfer be expected. Thus it is futile for a teacher to expect that training in one subject will improve performance in other subjects which are dissimilar. Thus training in mathematics cannot be expected to improve children's ability to deal with other subjects because, as is sometimes suggested, it 'trains you to think logically'. Second, the teacher needs to bear in mind that teaching*

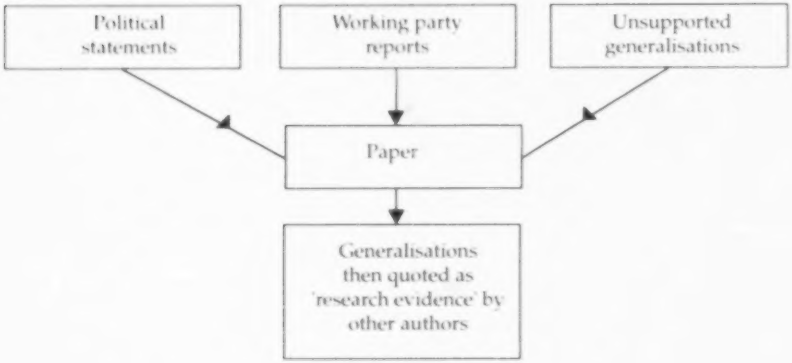
> *children one method of tackling a problem and then later introducing another method of solving the same problem which involves different and antagonistic activities from those previously learned, will make their learning of the second method much harder than if the first method had never been employed.*
>
> (Stones 1966, p.87)

At the very least, such summaries should encourage a cautious, limited and carefully monitored approach to key competencies before there is national implementation.

Thomson (1990) examined the recent literature from a perspective of 'problem solving and the transfer of skills'. He confirmed that vocational educators (in their writings) just assumed that skill transfer was possible. An analysis of *research* literature does not support this optimism. Indeed Resnick (1987) claims that skills acquired in one discipline do not generally transfer to other disciplines or even to everyday life. In this she is confirming Stone's (1966) summary.

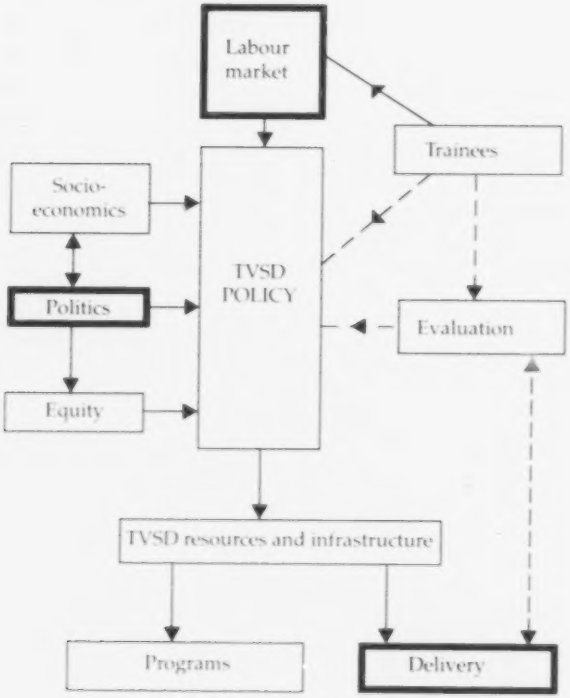
What we have then, in so many so-called research papers in vocational education, is the following structure.

Figure 1: Structure of many research papers in vocational education



A policy discussion paper published earlier this year by the ILO (Hall, Lacson, Ushiyama, 1993) bemoans the fact that most training research ('evaluation') has little impact on policy, and justifies this statement by developing the following policy background model. (TVSD is ILO jargon for technical and vocational skill development.)

Figure 2: Policy background model summarising things as they are—dotted lines show weak relationships



Another useful model (for classification purposes) is shown on the next page.

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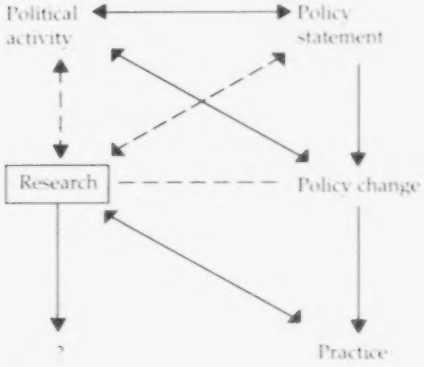
Figure 3: Research's relationship to policy: dotted lines show weak relationships



This shows that although political activity, policy statement and policy change are barely affected by research (and themselves barely affect research), practice both affects and is (in varying degrees) affected by research. Some 'research', however, seems to lead nowhere, having no apparent effect on anything.

I tested the model by analysing over 40 recent publications (or research in progress) on the schools–TAFE interface. All but a few were looking at practice, with no questioning (for example) of the policy statements or ensuing policy changes. Further, a good quantity of vocational training publications in the school–TAFE interface is in the form of 'sermons', with no experimental support for sweeping statements. For example consider the statement about open learning taken from a recent policy document:

> *Open learning approaches make networks of providers more flexible. They allow for the better use of resources, improve access and allow the trainee, and the industry, to have much better control over the learning.*

Really! The trouble is that people start to believe such statements, never questioning their validity. They then go on to cite the reference in later (so-called) research papers.

Just one of the (many) reasons why it is essential to have a (relatively) independent, national research organisation such as the NCVER is so that analytical research which questions such assumptions may be done.

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School–TAFE interface

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Research completed

The first major national review of school–TAFE co-operation research was conducted by the TAFE National Centre for Research and Development (Jones & Krzemionka 1987). Their massive study had been preceded by State and Commonwealth reports which had urged the sectors to work co-operatively. These reports included those of the Commonwealth Schools Commission and Technical and Further Education Council (1982), the OECD (1984), and the Quality of Education Review Committee (Karmel 1985).

The National Centre's research:

- reviewed the roles of school and TAFE;
- produced a national inventory of co-operative programs;
- provided exemplary case studies;
- established a network;
- promoted school–TAFE co-operation.

It was a highly successful project which was a catalyst in the rapid expansion of co-operative ventures. Of its 19 recommendations, only six did not have direct policy implications. It led to a national conference on co-operative programs (Department of Education, Queensland 1988) and most of the policy issues were resolved.

Many of the publications dealing with the school–TAFE interface are not research reports, but they do influence policy and (consequently) have an impact on the research which is (or more usually, should be) done. Obvious examples are the statement by the Prime Minister, 'A national employment and training plan for young Australians' (Keating 1992), which introduced 'career start traineeships'; the Finn (1991) review; the Mayer

(1992) Committee report; and the ESFC report produced under Carmichael's (1992) chairmanship.

The general policy thrusts of all of these reports are to make vocational training more 'flexible' (in one sense) and more 'structured' (in another sense); and hence more 'relevant'. There is a call for a merging of the school–TAFE boundaries, of the boundary separating general and vocational curricula, as well as of the boundary between education and industry/commerce.

The previous paper 'Does research influence policy?' makes the point that some important policy decisions have been taken on non-existent, or flimsy, research evidence. Indeed, as was pointed out, the research into 'transferability' is actually discouraging. This, however, did not prevent the Finn (1991) review from asserting:

> ***Pathways***
> *It is important at the post-compulsory level that young people should have access to a range of different pathways and should be able to move from one to another without 'losing ground'. The real level of skills and knowledge acquired by an individual in one educational setting should be given due recognition when that individual moves into a different setting. Young people also need to know, in advance, the implications of any significant educational choice in terms of possible employment outcomes and opportunities for further education and training. There is a range of improvements needed in policy and practice in relation to the integration of pathways through schools, TAFE and higher education.*

The research evidence indicates that very great care needs to be taken when interpreting such a statement, and policy makers should be aware of that.

Many (if not all) of recent, major policy thrusts are an act of faith; a set of hypotheses which should be tested. In the case of the Australian Vocational Certificate (AVC), a thoroughgoing attempt by the NCVER (funded by DEET) to evaluate pilot studies is proceeding (see below), but this kind of research is the exception rather than the rule. In any case, it is doubtful if the AVC pilot projects will investigate some of the fundamental philosophical issues relating to school curricula.

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One reason why CBT is being so vociferously attacked by schools is because teachers demand, but do not get, evidence of its usefulness (in its present form) to them. One carefully argued research paper by Kirkby (1993) came to the following conclusion:

> *CBT is being introduced and imposed by Commonwealth, State and Territory governments with the support of a powerful coalition of business, unions and the educational bureaucracy. It is being promoted as a necessary innovation to ensure Australia's international economic competitiveness. . . . This paper, however, concludes that CBT is fundamentally lacking in terms of its practicability, the ideology of conformity which it promotes, its failure to engage with ethical and cultural issues, and its contradiction of Aboriginal epistemologies.*
>
> (Kirkby 1993, p.8)

In August 1992, the Economic Planning and Advisory Council (EPAC) held a seminar entitled 'Education in the 1990s: Competencies, credentialism, competitiveness?' (EPAC 1992). With one or two possible exceptions, none of the nine papers could be described as being based on 'research'. They are opinions, personal observation, general description, bits of rehashed reports, and some dogma. Mind you, the NCVER's own conferences are certainly not free of such critical evaluation, with the number of actual research papers sometimes being quite small!

Examples of recent research on the schools–TAFE interface are those by Mageean (1991), the ACER (1991), Holden (1992), Holden and Dwyer (1992) and Chapman and Smallwood (1993). Mageean (1991) looked at the curricular implications for TAFE of increased retention to Year 12 and did include a chapter on policy considerations, one of which dealt with a view that TAFE was moving from vocational education to skills training; and that the school curricula may be vocationally orientated but should not be career specific.

The policy implications of the Chapman and Smallwood (1993) research were quickly caught up by New South Wales with ministerial press releases being produced. This NCVER project investigated the perception school students have of TAFE.

Important research by the ACER (1991) was part of their longitudinal study 'Youth in transition' and dealt with the labour market relevance of high school for those Year 12 school leavers (who did not go on to higher education). There was a view that the curricula was not relevant for work; and that student–teacher relations needed attention. There was some support for this from use of the Finn (1991) consultants.

Navaratnam's (1991) empirical model, which may be used to evaluate school–TAFE link programs, could be a useful tool for policy makers, administrators and teachers, with its emphasis on collecting qualitative and quantitative information.

Australia is well served statistically, with the ABS, DEET and NCVER producing regular reports. Sometimes there is a bringing together of information, as in DEET's (1991) leavers from educational institutions publication.

In summary: here in Australia there is a plethora of reports, a great deal of opinion, and a bit of research, some of which has policy implications.

Current research

The NCVER evaluation of the AVC pilot projects has already been mentioned. There are 37 work-based and 68 institution-based projects. It is important that the implementation review evaluation of these projects considers the broad policy issues as well as the more detailed evaluation matters.

The NCVER has another DEET-funded project to investigate the structure and networking of post-compulsory education, revisiting the school–TAFE arrangement proposed in the ESFC report on the AVC, and the apparent drift in TAFE towards a new binary system, in relation to other structural options. The project will include a national survey of vice-chancellors, TAFE directors and secondary school principals.

A further NCVER project will (among other things) look at the factors affecting the transferability of key competencies from one context to another. The validity

of 'generic competencies' will be examined. (This project is being undertaken with the New Zealand Qualifications Authority.) Other NCVER projects which are indirectly related to the school–TAFE interface include:

- the assessment of underpinning knowledge and the understanding in the Australian CBT system;
- transferability of knowledge and understanding;
- alternative educational delivery.

Local projects on school–TAFE links have recently been, or are being, completed in most States, dealing with credit transfer, joint school—TAFE programs and recognition of prior learning.

Research needed

For the school–TAFE interface, the chart summarises the current main beliefs, a summary of past research and an indication of research in progress.

Beliefs	Research findings	Current research
Transferability/core competencies	Do not support transferability	NCVER, but more needed
CBT	Little solid research to support Australian approach	More of a basic kind needed
Articulation/credit transfer	Encouraging in general terms, but little competency-based assessment yet	Various local case studies
TAFE's image	Not high with schools; very high with TAFE graduates	NCVER (TAFE graduates)
Boundary removal	Encouraging examples so far	NCVER

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Current research issues in competency-based assessment

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When I'm asked what research has or is being carried out into competency-based assessment (CBA) in this country, the answer has to be—not much. Over the years there have been a few papers in the NCVER's journal—the *Australian and New Zealand Journal of Vocational Education Research* and, just recently, VEETAC (1993a) published a collection of papers delivered at a national forum on CBA. But assessment has persistently been the poor cousin of other issues in the competency-based family.

This has placed us in the dangerous position of developing assessment policy on a very thin research base. Assessment policy emanating from bodies such as VEETAC, the NTB and the Competency Standards Body for Assessors seems to be based on some overseas practices and local 'expert' opinion. I can find little Australian research which backs up the decisions the 'experts' are making.

This is why I referred to the 'dangerous position' we are in, because if the experts are proved wrong by subsequent research, the whole competency-based movement will be open to attacks that might be difficult to contain. And more attacks is something competency-based assessment can do without. For example, we already have a fight on our hands with some in higher education. The vocational education people say CBA is good because it measures the skills needed to do jobs and it is based on the standards expected in those jobs. Therefore it provides a relevance that has previously been missing.

The argument coming from higher education is that CBA is bad because their job market is so diverse. Therefore, it is impossible to achieve a close relationship between the higher education job market and competency standards. They say that for competency-based assessment to work you would need hundreds of assessments to match the hundreds of jobs at the end of, say, an arts degree—something that is beyond the resources of higher education institutions.

So here is one issue crying out for more research.

Some of you will be aware that earlier this year VEETAC sponsored two national assessment forums which, among other things, produced an outline of a CBA research agenda (VEETAC 1993a). I have provided this agenda in the form of a set of research questions as an attachment to the paper. I should point out that the questions were extracted from my notes taken at the forum and may vary a little from the official version.

The first thing to note about this list is that it consists for the most part of applied research questions. For example, there is no direct reference to the place that knowledge has in CBA. Yet this is a repeating theme in much of the literature (Berryman 1993; Eraut 1989; Mitchell et al. 1990; Shepard 1991; Thomson 1991).

Nevertheless each of the questions is important and each identifies an area in which research is needed. But rather than review them all (and produce a document of daunting length) I thought it more appropriate to concentrate on issues that place us in the 'dangerous position' I refer to above. Therefore this paper will address research issues where I believe the advocates of CBA are most vulnerable. These are:

- the relationship between CBA and learning;
- assessors, assessor training and RPL.

Relationship between competency-based assessment and learning

Research into the validity of an assessment traditionally seeks answers to questions about:

- how well the content was covered (*content validity*);
- how well the assessment correlates with existing criteria external to the assessment (*concurrent validity*);
- how well it predicts future performance (*predictive validity*).

Leaving aside the question of whether this last question—predictive validity—has any place when we are measuring performance of current competencies, there is another type of validity which has hitherto been neglected.

This has been called *consequential validity* (Linn et al. 1991; Messick 1989) and concerns the intended and unintended effects of assessments on trainees' learning. The current assumption is that competency-based assessment, because it is more directly related to the outcomes of the world of work, will result in training activities that are more conducive to learning. But it could be that the training is simply mimicking work and that the assessment does not go beyond what is covered in the training. Should this be the case, one likely result would be a repetitive and sterile learning environment.

Reich (1989) draws a comparison between training that prepares young people to implement instructions conscientiously and the modern production line with its pre-established sequence of routines and practices. He argues that this is not the way to go but instead we need a system which helps:

> *. . . students gain the experience of working through problems and thus discovering underlying principles that help define and solve related problems.*
>
> (Reich 1989, p.101)

CBA must not become part of this sterile learning problem; it needs to support an education and training system which enables people to define and solve problems for themselves. We could put this another way by saying that 'assessments should serve as exemplars of good teaching practices that are not likely to distort the teaching and learning process' (Pandy 1990).

Current and future research needs

At NCVER we have just begun a project on exemplary assessment approaches which will, we hope, enable more light to be shed on the relationship between assessment and teaching and learning. But this is just one of the many pieces of research that are needed in the area.

A second important assessment–learning issue that needs attention from researchers has its origins in the so-called behaviourist theory of learning.

A common characteristic of competency-based assessment is the breakdown of complex tasks into checklists of performance items against which an individual is assessed. (These are derived from the performance criteria in the NTB standards or the assessment criteria in ACTRAC's curriculum documents.) The parallel with Skinner's stimulus-response theory of learning (Skinner 1953) is obvious, as too is the danger inherent in this approach. The breakdown of tasks into even smaller sub-tasks can result in the learner concentrating on the trivial and not understanding the larger context.

While most vocational educators in Australia are aware of the Taylorist (Taylor 1911) overtones of assessment checklists, there is not a great deal of evidence that they are abandoning the approach. While there is much talk about the use of holistic assessment, practical examples of this technique are the exception rather than the rule.

However, checklists may not be all that bad. American evidence (Bransford et al. 1986; Collins, Brown and Newman 1989; Berryman 1993) suggests the problem is related to the context in which learning and assessment take place. If the learner can see the context for the checklist of tasks then both the learning and its assessment will be meaningful.

We need some Australian research into the existing level of decontexualised learning and assessment in our vocational education and training system. And this should be coupled with work on ways of moving CBA away from an undesirable focus on the one set of right responses and towards a problem-solving approach.

Still on the relationship between learning and assessment, as a final example of the research needed, I want to look at the assumption of transfer. (This issue is also covered on the first of the papers presented.)

This is an assumption, to be found in documents from VEETAC (1992) and the NTB (1992) to name just two, that competencies acquired in one context transfer to new contexts.

The assumption of transfer ignores a substantial amount of research which says performance is highly task dependant and there is limited generalisability from task to task (Greeno 1989; Shavelson et al. 1990; Resnick 1987).

This last assumption on transfer truly underlies the dangerous position we are in because, while we hold to the assumption, untold problems could be accumulating in the system. Individuals may be recognised as possessing skills (through this transfer process) that they do not in fact possess. In areas such as hygiene, health and safety the consequences of getting things wrong can be life threatening.

Again the need is for assessment research. We must find out whether transfer is occurring by testing individuals in a range of contexts.

Assessors, assessor training and RPL

Recent Australian research by Whitely (1991) has highlighted the range of demands that were being made on assessors.

Assessors charged with the responsibility of verifying that a trainee is competent must be sure (beyond reasonable doubt) that the necessary standard of performance and underpinning knowledge is present. This is a challenging task. But when people are applying for the right to practise in a profession or vocation through the assessment of their prior learning, the demands placed on assessors are formidable. In these cases the individuals are not seeking the novice status of a new graduate (with its expectation that learning will continue as they gain experience in the job), but rather are seeking the right of full or expert status. The task is

not impossible, but it requires a high level of assessment skills, higher possibly than those associated with the assessment of the normal trainee intake.

Policy in relation to the recognition of prior learning (RPL) and the standards required of assessors have been formulated by VEETAC (VEETAC 1991 & 1993b). However, it seems to have been determined that the role assessors are to have in the new system will be low key.

For example, there is a disturbing ambiguity in the documentation of the Competency Standards Body—Assessors and Workplace Trainers (1993) Assessors Competency Standards. Their document begins by listing the uses of the standards, including: 'As a basis for training of assessors . . . For the certification of assessors' (p.iv) but goes on to state:

> *'Assessors is not the title of a position but is the name given to persons acting in an assessment role. It is important to note that the assessor standards refer to an assessment role rather than an assessment occupation.'*
> (CSB 1993, p.v)

Furthermore, the NTB have established a national register of providers of training but not a register of assessors (NTB 1992).

To this we need to add the fact that the training programs for assessors that are now being advertised through the CSB—Assessors and Workplace Trainers vary in length between roughly two and five days. Part of the reason for such a short period is the reluctance of employers to release workers for training, but we must ask ourselves whether programs of this length provide anything more than 'survival skills'.

It can be argued that a survival skills program might be adequate if the assessor brings a high level of technical expertise in the occupational tasks being assessed. Indeed this is the situation in the apprenticeship system which many of today's experts have been through. However, expertise of a technical nature carries with it a separate range of problems. In research involving 98 experienced supervisors who were acting as assessors, Wolf and Silver (1986) found that assessor reliability

varied considerably and that assessors showed a reluctance to follow written instructions. (For examples of the level of expertise required in the professions see Butler 1990 and Gonczi et al. 1990.)

It needs to be stressed that if the new system produces assessors (who may not even be called assessors!) with limited skills in both technical and assessment areas, then it will be hard to become enthusiastic about the final outcome.

Current and future research needs

To date NCVER has developed programs for either basic or workplace assessors in six industry areas:

- restricted electrical licences
- wine industry
- automotive industry
- local government training authority
- State Transport Authority (SA)
- Australian Public Service.

The way we went about this work in the electrical area is described in Saunders et al. (1992). Once developed, these programs become the property of the relevant industry body which can seek accreditation as a provider of assessor training.

NCVER does not see itself in the business of competing with other bodies in providing training of this nature. We have invested a considerable amount of research time and expertise in getting assessor training to its current state of development and believe it is more appropriate for the industry and private training bodies to make use of our programs as they see fit.

What is lacking in all this development work are checks to see if the assessor training programs are in fact producing competent assessors. Not all programs include a process that assesses and certificates competent assessors after training, but even those that do need to be evaluated in the longer term so that we can be sure that quality assessors are continuing to be trained.

Before leaving this section I would like to draw attention to the five principles underlying the recognition of prior

learning (VEETAC 1991). I believe that these principles, namely:

- competence
- commitment
- access
- fairness
- support

are deserving of further scrutiny. Research is needed to tell us whether these principles are adequate, whether more are needed and whether the methods currently used for RPL do accurately assess the competencies held by an individual.

Policy implications

Competency-based assessment has a substantial part to play in the future development of the training reform agenda. As Moran (1992) has noted:

> *Unless we address the issue of assessment, both on and off the job, within the next one or two years we will have unleashed powerful forces for change in vocational education and training without a means of knowing whether they work. This omission will leave TAFE and training exposed to the practised wiles of others who resent the public investment which it now attracts.*

Policy is therefore needed which will enable us to meet the anticipated challenges to the changes that are taking place. Furthermore, this policy needs to be driven to a substantial degree by research, because not only do we need to convince the critics of CBT, but also to convince the army of teachers and trainers who are expected to implement the changes. As Ashenden and Associates (1991) have pointed out, many teachers and trainers remain sceptical about the new approaches.

As well as policy ensuring that future decisions about competency-based assessment have a firm research base, there is also the need for a policy on assessment responsibility. Although Australia's new vocational education system has much in common with the UK's system, one important part is very different. We do not

have a tradition of national agencies such as City and Guilds, the Business and Technology Education Council and the Royal Society of Arts which have responsibility for assessing and certificating in vocational education and training.

In Australia this responsibility is (and seems likely to remain) with the individual States and Territories. And while the States have established principles for mutual recognition of qualifications, there is much to do before the principles can be implemented.

One promising initiative that could speed the implementation process has been the decision by New South Wales TAFE to establish an 'assessment unit' to serve the State's CBA needs. Policy makers could consider the possibility of establishing such units in all States and Territories. The units could form an assessment network and with their officers meeting regularly, could work co-operatively to solve the multitude of problems.

Hopefully in this way we can avoid each State and Territory developing its own sets of competency-based assessment instruments based on a single set of standards.

There is more than enough assessment work to go around.

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Flexible delivery

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Flexible delivery is intimately connected with open learning.

Open learning is a learner-focussed approach to education and training which seeks to provide learners with the maximum practicable choice of what, how, when, and where they learn, and at what pace. It is not merely a matter of technique, but an approach encompassing administration as well as education and training (cf. Johnson 1990).

Following a national feasibility study (informed by five other consultancy projects) commissioned by the Australian Education council (AEC) in December 1991, AEC-MOVEET in June 1992 agreed to establish an Open Learning Technology Corporation at Science Park in Adelaide, to provide services related to open learning to all education and training providers throughout Australia on a membership or fee-for-service basis.

Flexible delivery is an approach to delivery of education and training services that facilitates open learning by clients.

Flexible delivery: A national framework for implementation in TAFE in November 1992, defined flexible delivery as:

> *an approach to vocational education and training which allows for the adoption of a range of learning strategies in a variety of learning environments to cater for differences in learning styles, learning interests and needs, and variations in learning opportunities.*
>
> (FDWP 1992, p.47)

The working party has commissioned a number of consultancy studies to inform various aspects of policy and practice, and more will be commissioned.

NCVER has also commissioned several small research projects which relate to aspects of flexible delivery.

Education and training policy on flexible delivery needs to relate to fundamental research on learning or cognitive styles as well as applied research and development on the techniques of flexible delivery.

Research completed

The Flexible Delivery Working Party paper, *Flexible delivery: A national framework for implementation in TAFE*, outlined a proposed national approach, and consultancy studies commissioned by the working party have explored issues relevant to the implementation of that approach.

A paper on the *National project on learning centres* by Outer Eastern College of TAFE suggested that flexible delivery learning centres, 'owned' by a community or network, need to be developed to make flexible delivery more visible and accessible to individual and industry clients. The report proposed regional, State and national co-ordination of these learning centres to foster 'partnerships' (FDWP 1993a).

Another project for the Flexible Delivery Working Party produced a guide to implementing flexible delivery. The guide gives practical advice on planning and managing flexible delivery, including market research, development of courses, staff development, program delivery and administration (FDWP 1993f).

A paper on the potential benefits of flexible delivery of training for industry, private and non-institutional providers by Peter Kearns and Associates, called *Towards new alliances for learning in industry*, found that a paradigm shift was occurring in firms committed to continuous improvement towards a 'continuous learning' approach. The report addressed manufacturing, hospitality, banking, retail, electronics, and information industries, and local government, police, social security and employment services. The paper recommends a three year program to address barriers to the extension of flexible delivery of education and training in industry.

noting that this will promote the development of a more open training market (FDWP 1993b).

The Philip Hudson Consortium has developed a *Cost-benefit model for flexible delivery and operating manual* which provides a computer model (and operating manual) to allow public and private educational managers to calculate the costs and benefits of different combinations of delivery methods, in order to determine the most cost-effective mix. The model distinguishes measurable and intangible costs and benefits. The model is intended to be a planning tool to assist managers to develop more effective and creative delivery arrangements (FDWP 1993d).

A paper on *Appropriate technologies for flexible delivery* by Queensland Distance Education College found that selection of learning technologies was typically very ad hoc, because of insufficient access to information about alternatives. The Open Learning Technology Corporation clearinghouse was seen as a necessary measure to reduce duplication and improve dissemination of information about learning technologies. Use of the technology was often sub-optimal, because too few staff were properly trained in its use (FDWP 1993c).

A paper by New South Wales TAFE Planning and Evaluation Unit on *Physical facilities for flexible learning* found that the growing trend towards flexible design of new buildings since the 1980s meant that flexible learning philosophies would not have a major new impact on building design. However, there are likely to be significant effects on the management of physical facilities as a result of flexible learning approaches, requiring strategies for improving access for a more diverse clientele, and a more strategic approach to using resources to meeting clients' needs in a context of rapid technological change, particularly in information technology (FDWP 1993e).

An NCVER-commissioned study of *Strategic planning for open learning* by Mr Tom Goode (1993) compared the capital requirements and planning for the application of flexible learning at Joondalup campus (WA) and the Tea Tree Gully campus of the Torrens Valley Institute of Vocational Education (SA). Strategic planning was seen as being too readily the captive of the more easily

quantifiable building requirements. As in the New South Wales TAFE study, Goode found that buildings are now generally being planned for flexible use over their economic life. Other planning is, however, too often undertaken in a segregated manner. There is a need for a more integrated strategic planning process which should be more inclusive of educational philosophy issues from the beginning. Tea Tree Gully and Joondalup both exhibited integrated strategic planning. Success in implementing flexible delivery requires an open and devolved management style, major staff development efforts, more information technology and more lead-time for the development of course materials.

In a paper to this year's NCVER July conference, Professor John Stevenson presented a provocative and critical review of cognitive psychology literature, drawing out its relevance for vocational education. He analysed technical expertise into the expert's capacity to co-ordinate specific procedures (how-to-do-it), conceptual understanding of a domain or field and strategic control or how-to-decide types of knowledge. Vocational education tends to emphasise specific procedures (how-to-do-it) knowledge, to the relative neglect of the self-management skills and personal empowerment embodied in conceptual understanding and strategic control types of knowledge. The need for research focussed on appropriate learning experiences to develop conceptual understanding and strategic control types of knowledge is a general observation in relation to vocational education, but one which becomes more acute in its implications in relation to flexible delivery and open learning (Stevenson 1993).

Current research

Continuing this theme in a more pragmatic, applied research vein, an NCVER-commissioned evaluation is examining the application of flexible learning approaches at the Tea Tree Gully campus of the Torrens Valley Institute of Vocational Education in South Australia in 1992 and 1993 academic years. The study is examining student performance in the context of staff and student perceptions and experiences of the application of flexible learning, related to the institute management's intentions.

The work-in-progress indicates a relatively low level of student awareness of the flexible learning philosophy of Tea Tree Gully campus among students before they first enrolled, so that students needed to learn a new set of institutional expectations as part of their adjustment. This was also true of some staff. The report, which will be completed by May 1994, promises to be very interesting.

An in-house project at NCVER by Dr Josie Misko is critically reviewing the existing literature on flexible learning. It is also addressing the issue of learning styles in relation to flexible delivery. This report will be completed by November 1993.

DEET is also funding a current study by Peter Kearns and Associates of the implications of flexible delivery for disadvantaged clients of vocational education and training providers.

Research needed

Much of the research described here is applied research directed towards implementing flexible delivery. Further applied research is needed on various aspects of the flexible delivery of education and training, not the least of which is the management of the implementation of flexible delivery, taking further Goode's paper on *Strategic planning for open learning*. A proposed in-house project on the implementation of the training reform agenda on TAFE managers at the college or institute level, which is to be considered by the next meeting of the Board of NCVER, could contribute to defining issues in this area.

Further research (both basic and applied) is also needed in relation to the relationship of flexible delivery of education and training to individual students' learning styles.

Learning styles encompass how individuals prefer to process information (cognitive style) and what generally motivates them and their physiology (Keefe 1979). Individuals' preferred methods for processing information have been found to affect the subjects they choose to study (Hudson 1966; Shade 1983; Witkin 1976).

Learners also differ in whether they prefer to work with questions which have only one or one most accepted solution, or questions which are open ended (Guilford 1956).

How much an individual is influenced by the environment has also been found to affect students' subject choices (Witkin 1954, 1976; Shade 1983).

Learners have also been found to differ in their preferences for relying either on detail which they can see, feel, hear, taste or touch, or information based on intuition or imaginative abstraction (Grecorc 1979; Myers 1987).

When students are given tests which are conducive to their preferred learning styles, they are quicker at reaching a solution (Salomon 1981) and more likely to be successful (Pask 1976a, cited in Entwhistle & Ramsden 1983; Riding & Buckley 1989).

Personality differences, motivation and physiology are other characteristics which can affect how students learn. (Eysenck 1957; Myers 1987; Lovell 1981; Keefe 1979).

One Australian study of Australian TAFE students has indicated that there are mismatches between how teachers perceive students' learning styles and students' own preferences which affect how instruction is delivered (Smith & Lindner 1986).

There is evidently significant scope for more research on how students' learning styles affect students' success in education and training. This work needs to be taken over into detailed applied research on how best to deliver education and training to students with different learning styles.

In principle, however, research on differences in learning styles essentially underlines the value of more flexible delivery of education and training, permitting more student choice to meet students' preferred learning styles. This may require the retention of access to relatively traditional structured approaches as well as access to more open approaches.

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Further research is also needed on developing the conceptual understanding and strategic control types of knowledge which Stevenson suggests are not sufficiently well developed in most vocational education and training.

If flexible delivery is intended to assist in empowerment of learners through open learning, this cannot be fully effective if vocational education is too narrowly focussed on procedural knowledge.

That is to say, research policy should be directed towards more basic and applied research on adapting education and training teaching methods, materials and assessment instruments to different learning styles. Teaching methods, materials and assessment processes also need careful development to ensure that vocational education and training imparts enough conceptual understanding and strategic control types of knowledge to empower learners to become effective practitioners.

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Non-TAFE or private providers

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The existing Australian training market could be described as a highly segmented one, with public and private providers of vocational education and training who have substantially different clientele. TAFE is the dominant public provider of vocational education and training services.

Neither 'private' nor 'non-TAFE' providers are entirely adequate terms. Community-based providers do not see themselves as private profit-oriented bodies but as public non-State institutions. Many other private providers of vocational education and training see 'non-TAFE' as making TAFE normative. This paper uses private providers since it is the term used in the National Framework for the Recognition of Training.

Private or non-TAFE providers can be classified as commercial, community-based, enterprise and industry providers.

In November 1990 a Special Ministerial Conference decided to promote the development of a more open national training market, that is, a more competitive market for education and training services. The training market decision evolved from the Deveson Report on *Training costs of award restructuring* (1990), which had highlighted the need for a more industry-responsive approach on the part of TAFE, and the assumption by the private sector of a greater role in training. The Finn and ESFC/Carmichael reports have also given encouragement to private providers.

Development of a more open training market can be seen as a process of moving gradually along a spectrum, using a number of policy instruments that collectively could

make only an incremental impact on existing market distortions, such as encouragement of 'entrepreneurial' pursuit by TAFE colleges/institutes of fee-for-service income and joint ventures with private firms in order to acquire additional equipment.

Two policy instruments which are emerging possibilities are to place future recurrent funding through tendering or voucher schemes. For instance, the National Board of Employment, Education and Training in *Post-compulsory education and training: Fitting the need* (1992) suggested that future growth in tertiary education should be allocated by tendering, on a program rather than a sectoral basis, to increase opportunities for competition between prospective providers. The federal opposition has advocated extensive use of vouchers. Tendering or voucher schemes could have potentially far-reaching impacts in terms of the development of more competition in the Australian training market (Lundberg 1992).

At the same meeting in November 1990, ministers also agreed to adopt a national approach to the recognition of competencies, however they were acquired, and in March 1992 they adopted a National Framework for the Recognition of Training (NFROT). The framework includes provisions for recognition of prior learning, articulation and credit transfer, accreditation of courses, registration of private providers and mutual recognition of credentialling of qualifications. It is a structure within which it is hoped that closer co-operation will develop. Improvements in recognition arrangements for private providers (covered by the new National Framework) will promote freer competition between public and private providers.

While governments are seeking to encourage TAFE colleges/institutes and private providers to compete, there is still too little information about, and research on, private or non-TAFE providers of vocational education and training services. This paper notes some of the research in hand and underway, and suggests areas in which further work might usefully be done to inform policy development and implementation.

NCVER is contributing to improving knowledge about private or non-TAFE providers by undertaking a series of core-grant funded in-house and/or commissioned

projects on commercial, community-based, enterprise and industry providers.

Research completed

The first of three major private provider projects is an NCVER-commissioned study of commercial providers by OTFE researcher Mr Damon Anderson (1994, forthcoming). Anderson reviews the national policy context and profiles registered commercial providers in Victoria and Queensland. The organisations included in the case studies were; Stott's Commercial College, RMIT TAFE School of Business Studies, Australian College of Travel and Hospitality, (TAFE) College of Tourism and Hospitality, Computer Power Training Institute and Outer Eastern College of TAFE.

Commercial colleges were seen as having a quality image, being vocationally specific, with a practical workplace orientation, preferring flexible delivery of short, intensive courses, inculcating 'private sector standards' of presentation, with a strong emphasis on industry recognition and successful job placement. TAFE colleges were seen as educationally and socially broader in orientation, with a holistic approach offering more intra-program diversity and more choice of articulated courses and recognised pathways. TAFE has more depth of talent in teaching staff, more support services, greater emphasis on generic skills development, more innovative approaches to delivery and more pro-active access and equity strategies. His report is being edited for publication in 1994.

The Office of Training and Further Education (OTFE) recently undertook a survey of private providers registered in Victoria.

Supplementing the private provider series, a recent publication by NCVER research fellow Ms Kate Barnett (1993) called *Swings and roundabouts: The open training market and women's participation in TAFE* was prepared for the National Plan of Action for Women in TAFE. The paper overviews patterns of, and barriers to, women's participation in TAFE, assessing the likely impact of an increasingly open training market on fair access. *Swings*

and roundabouts concludes that action to address the barriers to women's participation must accompany the development of an open training market or women's participation will decline.

A report by Peter Kearns and Associates called *Towards new alliances for learning in industry* was prepared for the Flexible Delivery Working Party (FDWP 1993). The report recommended a national strategy to promote flexible delivery of training within industry, private and non-institutional providers to support the development of a 'continuous learning' approach within industry and other organisations. The report recognised that this would promote the development of a more open national training market.

Current research

The second in the series of NCVER-commissioned case studies of private providers is an in-house NCVER study of community-based providers of vocational education and training by Ms Kate Barnett. Three of four case studies have been completed for this project, and the fourth is about to commence. The case studies have been selected to reflect the diversity of community-based, non-profit providers. They include a neighbourhood house, a large-scale statewide provider (the Workers' Education Association), a rural community education centre and a community college, located in South Australia, Victoria and New South Wales.

This report is to be completed by December 1993. Work-in-progress suggests that there is a high level of co-operation between the community providers studied and their local TAFE college.

With the exception of the neighbourhood house, it is clear that the training reform agenda has contributed to an emerging pattern of co-operation between TAFE and community providers, and growing competition between community and commercial providers in relation to the delivery of vocationally-oriented programs.

The third in the series of NCVER case studies of private providers is a large, integrated study of industry and enterprise providers in Queensland, Victoria and South

Australia which will be published in 1994. Ms Kate Barnett of NCVER is the project manager and she will undertake one industry and one enterprise project in South Australia. Professor Brian Hansford of Queensland University of Technology will lead a Queensland team undertaking two case studies of industry providers. A Victorian researcher engaged by OTFE will undertake two case studies of enterprise providers.

Another project is being undertaken by Ms Kate Barnett of NCVER for DEET. It is a study of opportunities for women in community-based and commercial providers of vocational education and training.

The project will examine the attitudes of private or non-TAFE providers to equity issues, their willingness to address these issues and the incentives they require to do so. It will identify current provisions and assess their impact on women students. The project involves a comparison between the provisions of commercial or for-profit providers and those of community-based, non-profit providers.

These two types of providers have been selected for comparison because they offer some interesting contrasts and comparisons. Both provide off-the-job rather than workplace training, but one is guided by a profit motive and the other is non-profit motivated. The adult and community education sector has a consumer population which is composed mainly of women, as are most of its staff. However, some commercial providers offer courses which are traditionally 'women's' courses—for example, hairdressing, childcare and business studies. Community-based providers are known to be highly accessible for women students, but it is not known how accessible commercial providers are to women, especially those offering courses which are studied predominantly by men.

The project is surveying fifteen commercial and fifteen community providers across all States and Territories. Commercial providers have been selected on the basis of five areas of provision—business studies, nanny/childcare skills, computer studies, aviation and management studies. The first two areas have been

identified as 'traditional' fields of study for women, and the fourth and fifth as non-traditional, although management training is being accessed by an increasing number of women. Community providers have been selected to encompass the range of different types of providers and as much as possible, for their provision of training in the fields of childcare, business studies, computer studies, and management. Aviation training is not provided in the adult and community education sector.

The project will also obtain information through structured interviews with individuals with special knowledge about community and commercial providers, and about women's access to education and training. Women students undertaking courses with some of the commercial and community providers sampled, will also provide information about their ability to access these courses and other provisions in the field of vocational education and training.

A further comparison will be drawn, from the perspective of course offerings, between the commercial and community providers sampled and TAFE provisions in the five subject areas studied.

The Vocational Education, Training and Employment Council (VETEC) in Queensland undertook a survey of private providers registered in the State late last year, and the data is being analysed with the expectation of a report being published in November-December 1993.

The federal Department of Employment, Education and Training (DEET) and the Australian Bureau of Statistics (ABS) have been working since 1992 on new and revised survey instruments which will throw new light on private providers of vocational education and training. New iterations of the 1989 Training Expenditure Survey of employers and the 1989 household surveys of Career Paths of the Trades and How Workers Get Their Training will be undertaken in 1995, with modified questions relating to private providers. (These surveys will contribute to an evaluation of the training guarantee program.) After a feasibility study completed in September 1992 was considered, since February 1993 DEET-ABS have been developing a survey instrument which is to be piloted in February 1994, to resolve basic

issues including sample suitability. The previously mentioned NCVER-commissioned study by OTFE of commercial providers contributed qualitative information to the development of this instrument. If the pilot is satisfactory, the survey will be undertaken in full in February 1995, which is expected to produce useful data on commercial private providers to a 'by State' level.

The pilot projects for the Australian Vocational Certificate (AVC) system are developing many different arrangements between private providers, and between private providers and TAFE. In a number of States and Territories, public and private secondary schools are being registered as 'private providers' for NFROT purposes to participate in the AVC pilots as non-TAFE providers of vocational education and training. The implementation review of the AVC pilot projects (listed in DEET 1993) is likely to have interesting implications for policy in relation to private providers.

Research needed

Effective policy making in relation to private providers and open training market competition requires improved research on both elements.

Systematic national surveys of registered private providers should be a priority activity within the next few years, as State and Territory registration bodies associated with the National Framework for Recognition of Training build up progressively better coverage of private providers.

Market forces and the value of NFROT recognition in marketing to clients should induce most private providers to register. Policy and research require more information about what types of course are provided to what types of students by what types of providers. More needs to be known about the operational arrangements of private providers. NCVER's qualitative case study research could also contribute to the development of appropriate quantitative survey instruments.

A study of the coverage of such registration could also be of policy interest, but methodologically difficult,

because in effect it would be a study of how many private providers provide vocational education and training services without registering.

A study of the factors which have induced and sustain current market distortions in the provision of vocational education and training services could also be of policy interest. It cannot be assumed that market distortions are necessarily a bad thing. They may have benign or even beneficial social effects, but that is a matter that could be determined by explicit analysis of market distortions, their effects and the likely consequences (in equity as well as efficiency terms) of different means of changing them. This could give a considerable impetus to the development of a more open market for education and training services in Australia, as ministers proposed in 1990.

Quality assurance arrangements for vocational education and training should become an increasing priority for research and policy development, partly because it has tended to be given inadequate attention and partly because the development of a more open training market makes the provision of better information to 'consumers' of such services a matter of growing importance. The alternative may be market failures and recriminations that may tend to damage reputations beyond those directly involved.

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Appendix 1

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Research needs in vocational education and training

Policy and economics	Priority area: The economic benefits of vocational education and training — both at the micro and macro level, including the relationship between education and the economy and the training agenda. Topics: • The social context of learning • Economic analysis and econometric modelling, especially for resource allocation and the tying together of labour force developments and training • Extent to which there is a training market • Studies which anticipate important changes in the socio/cultural and technological spheres
Organisation	Priority area: Management in TAFE systems — in particular, the assessment of various approaches to corporate management. Topics: • Models and methodologies for cross-sector accreditation (national system) • Recognition of prior learning • Market perceptions of qualifications • Connections between industry and vocational education and training arrangements

Industry Issues	Priority areas: Links between training and productivity, including the interdependence of training, organisational development, business vision, and productivity. The place of language, literacy and maths in workplace reform and training. Topics: • Training as a means of furthering organisational development • The role of training in workplace reform • Involvement of employers in workplace assessment • Problems specific to small organisations • Retraining: education/training and occupational choice • Language, literacy and maths in the workplace • Gender segmentation in the workforce; the impact of structural change and competency-based training on women's employment • Collaborative and co-operative models of training for industry and providers • Approaches to developing a workforce that is responsive to the marketplace • The nature of interpersonal skills and their contribution to the workplace • Core competencies required in industries
Students and trainees	Priority area: Community perceptions of vocational education and training and how these are formed. Topics: • Vocational education and training; needs of disadvantaged groups • Characteristics of students/trainees and the impact of policy on participation (e.g. fees) • Equity policy, the future of the disadvantaged inside and outside the workplace and in the continuum of educational settings • Attitudinal research: why and how do people choose careers and providers

Teachers and trainers	Topics: • Practitioners as researchers • TAFE teacher competencies: relative importance of teaching competencies and technical content competencies • Teacher and trainer education • How knowledge is used by teachers and trainers
Curriculum development and delivery	Priority area: The assumptions underlying competency-based education/training, ways of implementing CBT, the nature of competency-based assessment, and the implications for post-secondary sector and workplace training of the implementation of the Mayer report and the Carmichael reforms. Topics: • Learning settings, processes and outcomes • Modes of delivery x cost benefit x gender x background • CBT assessment and competency standards, assessment of higher order competencies • Relationship between competency standards and underpinning knowledge and skills • Enterprise-specific competency standards and their relationship to occupation-wide and industry-wide standards • The nature of workplace learning • Innovative approaches to skill formation at the workplace • Relating program design to National Training Board frameworks • Rigorous analysis of current vocational education curriculum and the assumptions which underlie it • Responsibility for middle-level training

Appendix 2

Extracts from Peter Kearns and Associates, 1993, *A review of research and development structures and practices for vocational education, training and employment in five OECD countries*, NCVER, Adelaide.

R&D agendas and priorities

It is evident from an examination of the research agendas of VET R&D agencies in the countries discussed in this paper that these have broadened in line with the changes in VET in recent years and that there is considerable commonality in the issues that are given the highest priority.

We comment below on six key areas that receive high priority in the R&D programs of most of these agencies.

These key issue areas are:

1 the learning process and learning strategies
2 competencies and skills required in modern, technology-based economies
3 how these skills are acquired
4 VET efficiency
5 VET for special populations
6 integration and re-integration in working life.

The learning process and learning strategies

Research issues in the area focus on the learning process, particularly learning by doing and how this could be combined with learning based on cognitive processes. While there is increased interest in adult learning, *andragogy* as distinct from *pedagogy*, this still remains substantially a virgin field for exploration.

Increased interest in this area has led to a consequent interest in alternative learning strategies including strategies based on the workplace. BIBB has taken a close interest in the interactions between learning and working and in devising constructive models and strategies for work-based learning. NCRVE has sought to generate new ideas, based on findings from cognitive science, about the process of imparting knowledge, attitudes and skills to young people and adults.

The growing recognition of the need for life-long workplace learning has also prompted an interest in the subject of 'learning to learn', including motivational aspects. Developments in this area are highly significant for training strategies, in particular for adult workers.

Required competencies and skills

All VET R&D agencies have taken a close interest in the changing requirements for competencies and skills of a modern, technology-based economy.

There is wide recognition that skill formation in a modern economy requires combining occupation-specific knowledge and skills with broader, generic skills. While varying terminology has been used for the latter category of generic or key competencies, the concerns are the same.

Most European training systems have taken a strong interest in 'despecialisation' and it has been argued that the very notion of a 'trade' or 'occupation' is disappearing with the emphasis now on 'horizontal' skills and versatility. There is a consequent interest in the conditions that facilitate the transfer of skills (Jallade 1989).

How these skills are acquired

This research area is reflected in the organisation and content of curricula (including those for specific occupations) and in teaching/learning methods, within both schools and enterprises.

The research interests in the area also cover improving training for teachers and instructors and the use of new learning technologies, modular instruction, co-ordination between general and vocational subjects, new forms of qualifications and corresponding adaptation of accreditation and certification standards and procedures, and overall mechanisms for initiating and overseeing development in these areas.

VET efficiency

The increased efficiency and accountability pressures discussed above have led to a strong interest in the efficiency of the VET system. This has prompted an interest in such questions as how well does VET prepare people for employment and how adequate is the match between the training system and the labour market. The research field includes criteria for judging efficiency, both internal relating to how well the training is adapted to the target group it is intended to serve, and external in terms of access to a job appropriate to the training received, career opportunities, mobility and wages.

This has been a strong area of interest for CEREQ in such aspects as the relationship between training and the changing occupational structure and the role of training in the new economic and technological context including the relationship between skills and economic efficiency at the level of the enterprise.

VET for special populations

This has been a traditional focus of VET R&D which links with the continuing concern with integration and re-integration of particular groups in working life. NCRVE has given priority to issues relating to vocational education for special populations. In part this reflects the traditional federal role in provision for disadvantaged groups, but also the implications of demographic and social change with the trend to a more diverse workforce in such dimensions as its ethnic composition. NCRVE has therefore taken an interest in how different groups are socialised for work and how they vary in their approaches to learning and schooling.

This has also become an interest of European R&D agencies, in part related to the ramifications of EEC integration so that diversity and mobility in the workforce have been recognised as key issues.

BIBB has had a continuing interest in training for the long-term unemployed.

Integration and re-integration in working

Transition from school to working life was one of the early priorities of European VET R&D agencies during their formative period in the 1970s at a time of high youth unemployment.

BIBB has also given priority to the integration and re-integration into working life of various groups. This has included:

- transition from school to vocational training;
- transition after completion of vocational training;
- return to employment;
- unemployment after several years of employment.

Medium-term programs

It is usual for VET R&D agencies to develop medium-term programs as a means of contributing to coherence in the work of the agency and fostering continuity and accumulation of results.

In the case of NCRVE, medium-term priorities are influenced by the requirements of the Carl E Perkins Vocational Act.

An evolving agenda

The key issues outlined above involve a mix of the traditional concerns of VET R&D agencies and what may be regarded as the 'new issues' consequent on the current changes in VET. Some traditional issues such as school to work transition are now being examined in different ways in the light of new approaches to linkages between education, training and employment and a greater concern for life-long skill formation in the workplace.

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One consequence of the efficiency/accountability pressures discussed in this paper is a growing interest in the accumulation and documentation of research results so that the implications of research findings for policy and practice, and continuing gaps in knowledge, can be more efficiently identified.

The National Research Council Report on Research and Education Reform recommended that OERI should publish a biannual [two-yearly] report which would identify research accomplishments and identify unmet needs.

BIBB is currently engaged on a five-year project to document the findings of its research program. When completed this will be a valuable source of information for researchers and policy makers.

Employment agency priorities

While there are common research interests between VET R&D agendas and employment agencies, such as the English Employment Department and American Department of Labour, employment agencies have other priority interests as well in the light of their employment responsibilities.

These may be illustrated by the 1991 search program of the English Employment Department. This program is based on the medium-term priorities included in the Secretary of State for Employment's Strategic Guidance on Training and Enterprise statement of October 1990 ('1990s: the Skills Decade') and include the following priorities:

1 more effective investment by employers;
2 raising the level of skills and qualifications of young people;
3 encouraging individuals to take more responsibility for their own development;
4 opportunities for unemployed and disadvantaged people;
5 helping education and training provision to become more effective;
6 fostering self-employment and small business growth.

The United States Department of Labour sets its research priorities annually in accordance with the priorities for the department established by the Secretary for Labor. The Assistant Secretary for Employment and Training then develops R&D priorities for employment and training within this framework. There are currently six major themes which have been broken down into eleven subject area goals.

Requirements of 1990 Amendments to the Carl E. Perkins Vocational Education Act for Research and Development Activities of the National Centre

A economic changes that affect the skills which employers seek and entrepreneurs need;

B integration of academic and vocational education;

C efficient and effective practices for addressing the needs of special populations;

D efficient and effective methods for delivery of vocational education;

E articulation of school and college instruction with high quality work experience;

F recruitment, education and enhancement of vocational teachers and other professionals in the field;

G accountability processes in vocational education, to include identification and evaluation of the use of appropriate performance standards for student, program and State-level outcomes;

H effective practices that educate students in all aspects of the industry the students are proposing to enter;

I effective methods of identifying and inculcating literacy and other communication skills essential for effective job preparation and job performance;

J identification of strategic, high priority occupational skills and skills formation approaches needed to maintain the competitiveness of the United States workforce, sustain high-wage, high-technology jobs and which address market priorities such as technical jobs needed to protect and restore the environment;

K identification of practices and strategies that address entrepreneurial developments for minority-owned enterprises;

L upon negotiation with the centre, and if funds are provided pursuant to subsection (d), such other topics as the secretary may designate.

There is a similar set of requirements in the 1990 amendments to the Perkins Act in respect of the dissemination of training activities of the national centre.

Appendix 3

Some research questions about competency-based assessment identified at the VEETAC National Assessment Forum (June, 1993):

1. What is the most effective way to train individuals as assessors of competency-based training?
2. How does Australia's training reform agenda influence assessment?
3. What are the most effective methods of deriving assessment instruments from competency standards?
4. What effect does involving the trainees in their own assessment have on the overall validity of the process?
5. What criteria should we use to identify 'best practice' in assessment?
6. To what extent does the context in which an assessment is carried out affect the results of trainees?
7. How can individual contributions to group work be assessed?
8. How do the various methods of ensuring cost-effective assessment impact on validity?
9. How should assessment be conducted in order to demonstrate transfer of competence is occurring?
10. What forms of assessment are valid for training delivered by distance education?